Annual Report of the CZ.NIC Association
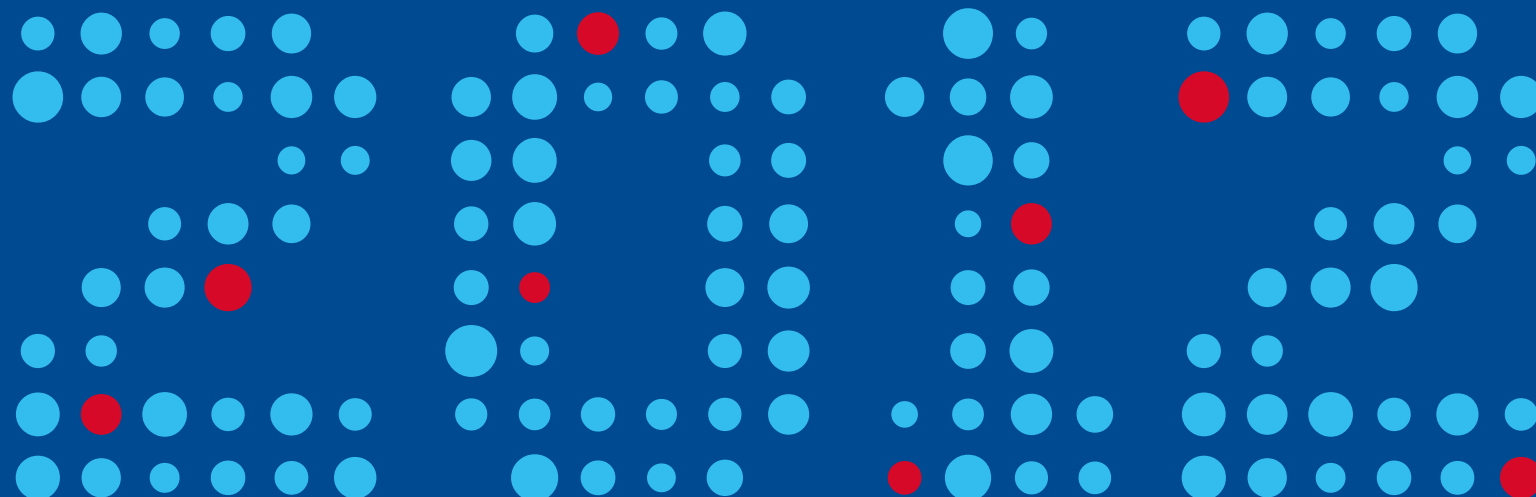
2013

CZ.NIC | CZ DOMAIN REGISTRY

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01. Profile of the Association

CZ.NIC is a special interest association of legal entities, an open and independent entity whose main activity is the administration of the registry of the top-level national .CZ domain and of the 0.2.4.e164.arpa (ENUM) domain, as well as securing their operation.

In addition to these activities, the Association carries out research and development of the Internet, Internet protocols and network traffic. Other activities of the Association include education and awareness in the field of the Internet and new technologies. All of these ancillary activities are intended to help the Internet community in the Czech Republic and abroad. Furthermore, CZ.NIC takes part in other activities and projects related to the functioning and further development of the Internet with the aim of strengthening its security and stability, factors that are becoming increasingly important with the steadily growing number of users.

The CZ.NIC Association was established in May 1998 in response to the growing importance of the Internet and the corresponding number of users and people interested in registering domain names with the .CZ ccTLD.

Today, the Association is a stable and trustworthy entity able to ensure reliable operation of the Czech national .CZ domain. For domain holders, registrars, and other entities that use the Internet in their work and spare time, the Association is more than just a reliable partner providing management of domain names; it is also an Internet security watchdog and organiser of activities beneficial to the general public, either in the form of the Laboratory projects or educational programmes.

02. Foreword from the Chairman of the Board of Directors

Karel Taft
Chairman of the
Board of Directors

Ladies and Gentlemen,

In 2012, we continued to successfully manage the .CZ domain, which is our main objective. The number of registered domains has already reached the million domain milestone. The Association is a trustworthy partner of the state, commercial organisations and citizens.
At the same time, we continue to fulfil our long-term strategy, and in addition to our domain administration system emphasising stability and security, we also strive to introduce new technologies and services. The Czech Republic is a leading country in the introduction of IPv6 and DNSSEC, technology that enhances the security of domain names.The Association is successfully deploying the mojeID service, providing a unique common identity to more than 160,000 Czech Internet users. The Association also carries out research in its Laboratories (the most successful projects being the BIRD routing daemon and Knot DNS, an authoritative DNS server); it organises educational events in its Academy, raises awareness through the media (the "What's the Internet For" series made for Czech Television) and communicates with the worldwide community. We also cooperate with the Czech state in the operation of its national CSIRT by participating in the areas of technical security and in the creation of new legislation on cyber security.

Our financial results for the year 2012 were positive; the funds we have received will be transferred to the reserve fund to ensure the stability of operation of the key components of the Association.

I would like to thank the management and all employees who have helped to make the Association run as smoothly as possible. We have earned the trust and respect of our partners, and I believe we will do our best to keep it in the years to come.

This annual report provides all key information about the Association. I hope you will continue to support us in the coming years.

03. Foreword from the Executive Director

Ondřej Filip
Executive Director

Ladies and Gentlemen,

It's impossible to look back at 2012 without mentioning the crossing of the magical barrier of 1 million registered domains. When we switched to our own FRED registration system in 2007, we had no idea how strong its positive impact on the growth of domain names could become. Since this migration, the rate of new registrations picked up considerably and the number of domains grows steadily by 120,000 – 130,000 each year. The Czech Republic now has the highest number of national domains per capita of all post-communist countries, with the exception of the specific .me domain.

Not only did the number of domains increase, but so did their security: at the end of 2012, approximately 38% of domains were secured with DNSSEC technology. With this figure, we have retained our top standing among all top-level domains in the world.

The mojeID project has also been very successful. At the end of the year, it had almost 164,000 users and was supported by a large number of service providers and registrars.

As in all previous years, we introduced many new projects in 2012. A major event for our Association was the hosting of a meeting of the highest-level Internet administrator ICANN in Prague, which was evaluated as very successful.

Another large and relatively significant innovation was the "What's the Internet For" educational series, which aimed to explain the Internet to less experienced users. Broadcast in prime time on the first channel of Czech Television, the series enjoyed excellent ratings.

Our Association also signed two major contracts with the state in 2012, following up on previous memoranda. The first of them was a memorandum with the Ministry of Industry and Trade of the Czech Republic. The other important document signed with the National Security Authority concerns the operation of the National Security Team CSIRT.CZ.

To strengthen the stability of the Association, the Collegium approved the purchase of a new building at the end of the year to serve as the Association's future seat.

As my short summary shows, the Association did not slow down in 2012 and continued to introduce new ideas and innovations. All in all, 2012 was another successful year for us; let's hope that 2013 will be at least as prosperous as the past year.

04
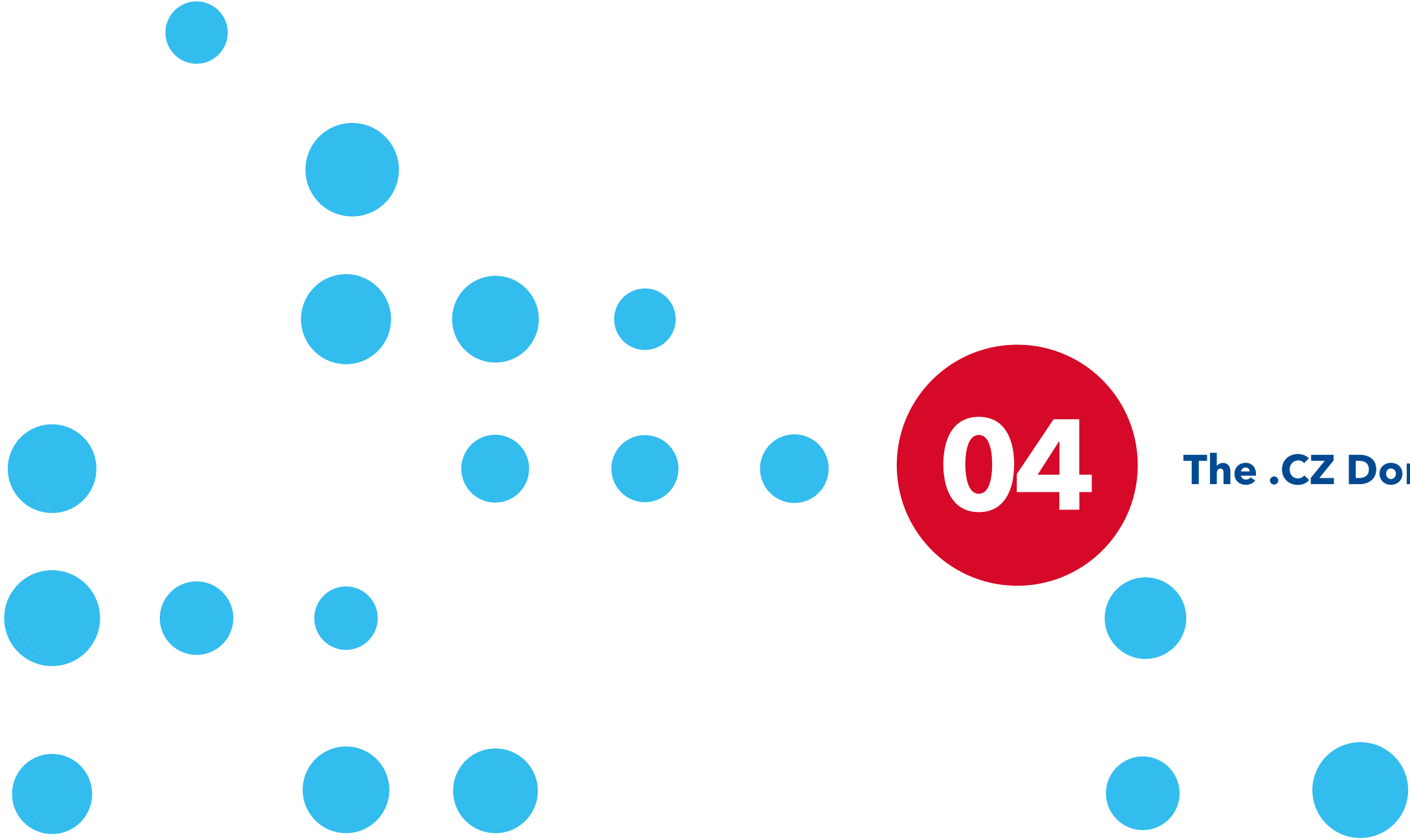
The .CZ Domain

04. The .CZ Domain

State and Development of Registration Numbers

In 2012, the total number of domain names rose steadily, achieving growth of almost 14% compared to last year; the increase from 880,614 registered domains as of 1 January 2012 to 1,010,325 at year-end makes the domain one of the fastest growing in Europe. The major milestone of one million registered domains was reached on 19 November 2012 at 5:24 p.m. On that day, the .CZ domain become the 12th "millionaire" among the top-level domains of EU countries. Registrations of new .CZ domain names in 2012 are shown in the following chart:
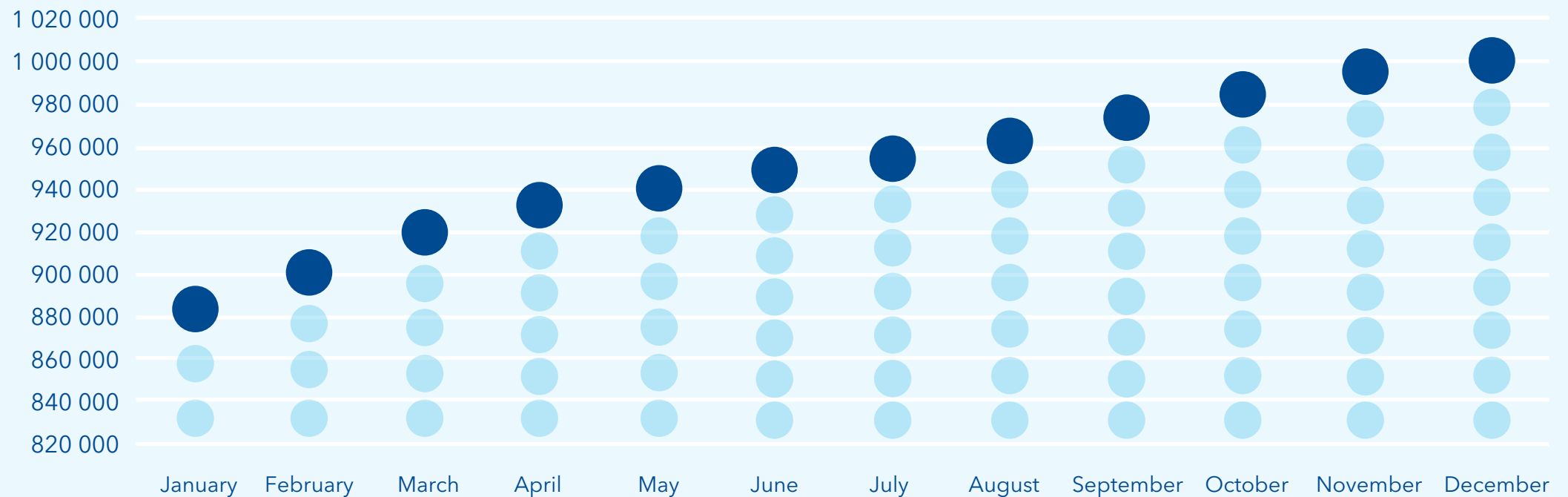
State and Development of Registration Numbers

In addition to the total number of domains, the number of new registrations also grew, with an average of 20,982 domain names registered each month. The following graphs show the number of new registrations by month in 2012 and the development of the average rate of new registrations since 2008.

Number of new .CZ domain name registrations in 2012
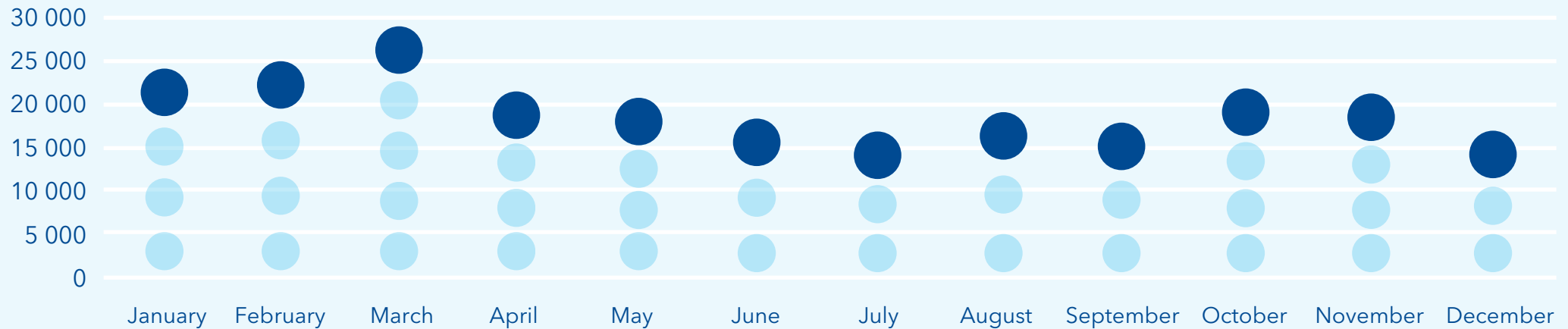
New registrations 2008 - 2012 (monthly average)
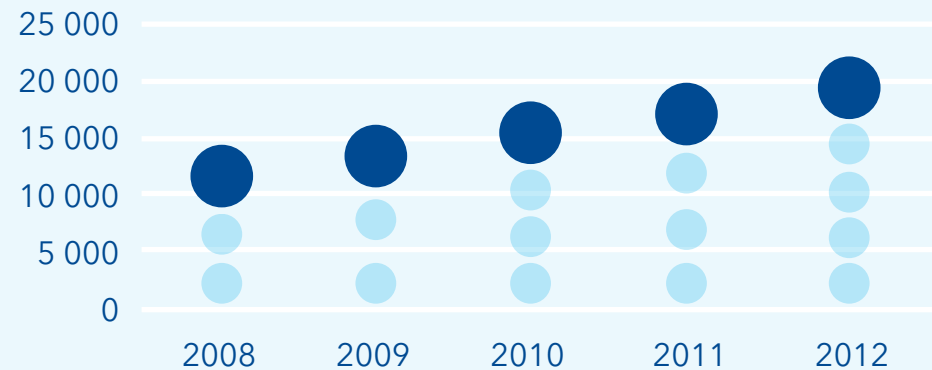
4.2. Registrars

The system of .CZ domain name administration is based on a distributed principle in which the registration of domain names is carried out by appointed registrars who are contractual partners of the CZ.NIC Association. CZ.NIC acts as their wholesale partner responsible for the technical operation of the .CZ top-level domain. The total number of more than 40 registrars means that end customers have a wide range of options and ensures sufficient competition.

4.2.1. Number and Structure of .CZ Domain Name Registrars

The number of registrars stabilised in 2012, making the market more transparent for end users.
The following companies became new registrars in 2012:

Company	Registrar since
MARCARIA.COM INTERNATIONAL INC	1 February 2012
Centrum Holdings s.r.o.	1 December 2012

The following companies stopped acting as registrars:

Company	Partnership ended on
Marketer, s.r.o.	10 January 2012
MASANTA.COM s. r. o.	31 March 2012
Mesh Digital Limited	31 December 2012

4.2. Registrars

List of all accredited registrars as of 31 December 2012

Company	Registrar since	Company	Registrar since
1API GmbH	11 September 2009	IP Mirror Pte Ltd	7 September 2009
1X s. r. o.	1 April 2009	Key-Systems GmbH	1 April 2008
Above.com Pty Ltd	1 March 2011	KRAXNET s. r. o.	24 October 2003
ACTIVE 24, s. r. o.	13 October 2003	MARCARIA.COM INTERNATIONAL INC	1 February 2012
AERO Trip PRO s. r. o.	1 September 2010	MarkMonitor Inc.	7 February 2008
AKREDIT, spol. s r. o.	6 April 2009	Media4web, s. r. o.	24 October 2003
Ascio Technologies Inc.	1 October 2007	MIRAMO spol. s r. o.	13 October 2003
ASPone, s. r. o.	1 April 2011	MITON CZ, s. r. o.	1 October 2007
AXFONE s. r. o.	1 November 2008	NEW MEDIA GROUP s. r. o.	1 August 2009
banan s. r. o.	1 August 2008	ONE.CZ s. r. o.	24 October 2003
CORE ASSOCIATION	1 August 201	ONEsolution s. r. o.	1 January 2011
Centrum Holdings s.r.o.	1 December 2012	OVH, Sas	1 November 2008
Český server .cz s. r. o.	5 February 2008	ProfiHOSTING s. r. o.	1 June 2010
Dial Telecom, a. s.	1 October 2010	Safenames Ltd	18 February 2008
e-internet.cz s. r. o.	15 July 2008	Seonet Multimedia s. r. o.	8 July 2009
Explorer, a. s.	1 October 2007	Stable.cz s. r. o.	1 April 2011
Gandi SAS	7 April 2008	TELE3 s. r. o.	14 November 2008
GENERAL REGISTRY, s. r. o.	13 October 2003	Telefónica Czech Republic, a. s.	24 October 2003
Gransy s. r. o.	12 January 2009	TERMS a. s.	1 April 2011
ha-vel internet s. r. o.	13 October 2003	Variomedia AG	1 April 2009
IGNUM, s. r. o.	13 October 2003	Web4U s. r. o.	24 October 2003
Instra Corporation Pty Ltd	1 March 2010	Websupport, s. r. o.	1 March 2011
INTERNET CZ, a. s.	13 October 200	WEDOS Internet, a. s.	1 August 2010
InterNetX GmbH	8 July 2008	ZONER software, a. s.	13 October 2003

4.2. Registrars

The largest registrars in terms of the number of administered domains are INTERNET.CZ, a. s., ACTIVE 24, s. r. o., IGNUM, s. r. o., Gransy s. r. o. and ZONER software, a. s. Market share of the largest registrars is shown in the following chart:

ONE.CZ s.r.o. **0,93 %**

Stable.cz s.r.o. **1,27 %**

ONEsolution s.r.o. **1,27 %**

Seonet Multimedia s.r.o. **1,35 %**

TELE3 s.r.o. **1,79 %**

Other
6,92 %

INTERNET CZ, a.s.
21,47 %

Web4U s.r.o.
3,85 %

Media4Web s.r.o.
5,24 %

GENERAL REGISTRY, s.r.o.
6,31 %

ACTIVE 24, s.r.o.
14,19 %

WEDOS Internet, a.s.
7,15 %

IGNUM, s.r.o.
11,66 %

ZONER software, a. s.
7,92 %

Gransy s.r.o.
8,7 %
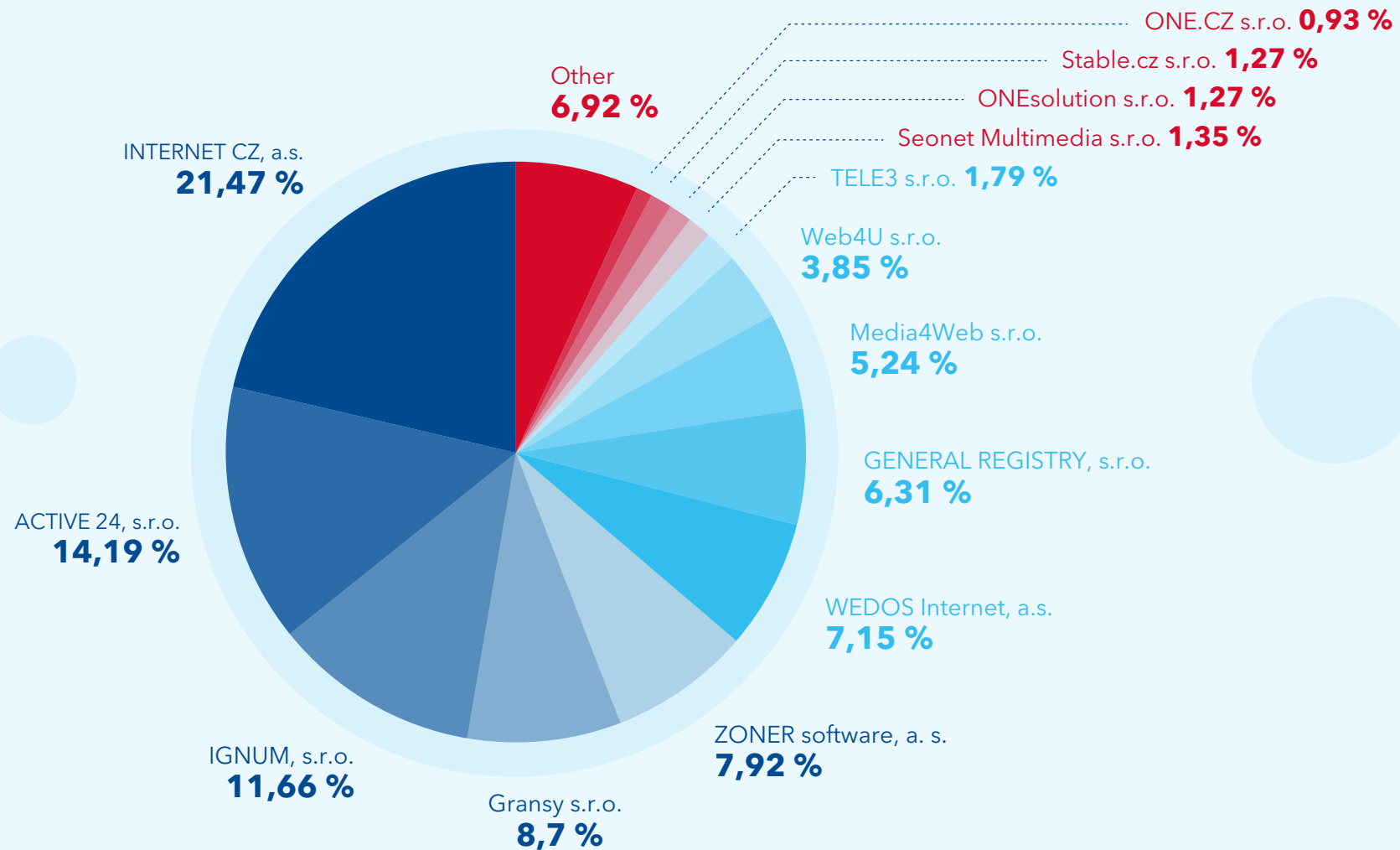
4.2. **Registrars**

4.2.2. Registrar Certification

Launched in mid-2011, the certification project is intended to help end users (i.e., those interested in domain registration as well as current domain name holders) make sense of the increasing number of registrars, particularly regarding the portfolio and quality of services they offer. The certification methodology was developed in cooperation with the registrars themselves and the Association for Electronic Commerce (APEK).

Registrars interested in participating in the project may be awarded the "certified registrar" logo for one year. In 2011, 11 registrars took part in the programme, and one more joined in 2012 (banan s. r. o.). In 2012 all 11 registrars from 2011 underwent recertification. A positive result was that two-thirds of them achieved better scores and no registrar scored worse than before.

4.2.3. Cooperation with Registrars – Co-marketing Programme

In accordance with its main activities and long-term objectives, the CZ.NIC Association wants to support the registration of top-level .CZ domains. However, since the national domain is administered in a distributed mode, the CZ.NIC Association has only very limited opportunities for reaching potential domain name holders with a targeted marketing campaign.

For this reason, we have established a co-marketing programme in which (provided the prescribed conditions are met) CZ.NIC contributes up to 50% of the costs of communication campaigns of registrars aimed at promoting the registration of domain names in the .CZ ccTLD.

As part of the co-marketing programme, registrars are also encouraged to deploy mojeID and secure their domains with DNSSEC.

In 2012, 12 registrars participated in the programme, running campaigns with a total volume of approximately CZK 10 million. Compared to 2011, this means a 50% increase in the number of participating registrars (from 8 to 12) and 25% growth in campaign value.

Customer Support

A key part of the operation of the .CZ domain is 24/7 customer support. The objective of customer support is to provide the best possible care to domain holders, particularly in situations when a domain registration is to be cancelled or transferred or when contact details change. Since 2010, our helpdesk has also been providing support to users of the mojeID service.

In its relationship with domain holders, customer support uses a proactive approach in an attempt to eliminate all cases of domain cancellation and forfeiture caused by outdated contact details or a forgotten payment. Due to the distributed system of .CZ domain management, customer support is the only time when the CZ.NIC Association comes in direct contact with domain name holders. In each month of 2012, we sent an average of 1,708 e-mails to holders of domains scheduled for cancellation, and made calls to 4,767 holders. Helpdesk staff also responded to an additional 1,120 phone calls and 1,746 e-mail inquiries (see chart).
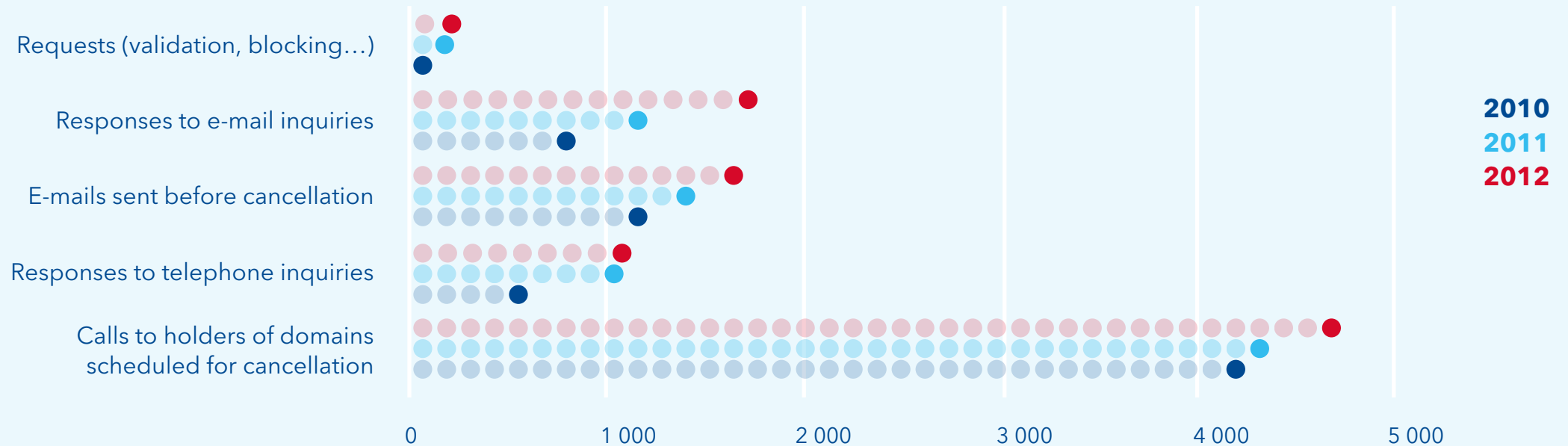
05 Infrastructure

05. Infrastructure

5.1. Technical Solution of Domain Management

The DSDng central register system was designed to be fully redundant. All hardware and software is provided at two independent locations, for connection both to the Internet and the electrical grid. Both locations are connected to two different transformer stations and naturally both also have independent UPS systems. Both likewise have diesel generators for use in the event of longer power outages.

In 2012, one of the locations was moved from the GTS data centre (Prague 3) to TOWER data centre (Prague 3) owned by Czech Radio Communications. The main reason for this change was the ownership merger of the SITEL and GTS data centres. The new premises were designed to enhance security (physically separate location, magnetic sensors on rack doors) and capacity (more racks, higher bandwidth). The second location is still Telehouse CEColo (Prague 10).

The system is designed as heterogeneous – failure of an individual hardware manufacturer cannot cause the central register to fail. Each location contains servers provided by different suppliers and running on a different architecture (Intel and AMD).

The central register software itself is designed to enable the swapping of any part of the architecture with its copy running at the other server/location, at any time. A critical component is the PostgreSQL database, which is always being replicated to the other location during standard operation; when the primary location is down, traffic can be redirected to the replicated database without any limitation or impact on functionality. Backup systems run 24/7 and are designed to be able to take over and provide registry operation in a short time whenever any component fails.

FRED (Free Registry for ENUM and Domains)
The central register software developed and operated by the CZ.NIC Association was made available as open-source to support smaller registries. Smaller and starting registries can therefore operate their domain in a system designed for the Czech domain which, with its parameters and capacity, is capable of handling much higher volumes of domain names than are currently registered in the .CZ ccTLD.

5.1. Technical Solution of Domain Management

In addition to the Czech Republic, this system is now administering domains in five other countries – in Costa Rica (.cr), the Faroe Islands (.fo), Estonia (.ee), Tanzania (.tz), and Angola (.ao).

Servers maintaining records of .CZ domains are, aside from one exception, owned by the CZ.NIC Association and operated in several locations around the world, including Sweden (Stockholm), Austria (Vienna), the United Kingdom (London), Germany (Frankfurt), Chile (Santiago) the United States (Redwood City and Culpeper, which is the exception mentioned, as it runs on the equipment of the ICANN organisation), Japan (Tokyo), and the Czech Republic (Prague).

The central register system is ready for IPv4 and IPv6 operation, and its current implementation for the .CZ domain (and all DNS servers) runs on both of these protocols.

5.2. Support of Internet Infrastructure

5.2.1. IPv6 Support

IP addresses are the basic building blocks of the Internet. Without IP addresses, it would be impossible to connect to the worldwide web; computers would not be able to recognise each other or become linked in a global network. The current pool of IP addresses is almost exhausted; the last address blocks in Europe were allocated in September 2012. The answer to this shortage of IP addresses is a new version of the Internet protocol, called IPv6, which provides a much greater stock of addresses as well as new possibilities.

The long-term goals of the Association include support of the deployment of this technology at all levels, i.e. content, networks and end devices. Together with registrars (who often also offer webhosting services), the CZ.NIC Association is also trying to support IPv6 on the side of web and DNS servers. Support of this technology continues to grow every year; today, the Czech Republic is one of the most advanced countries of the world in the deployment of IPv6.

Support of Internet Infrastructure

IPv6 support

		2010	
		2011	
		2012	

Web server DNS servers Mail servers
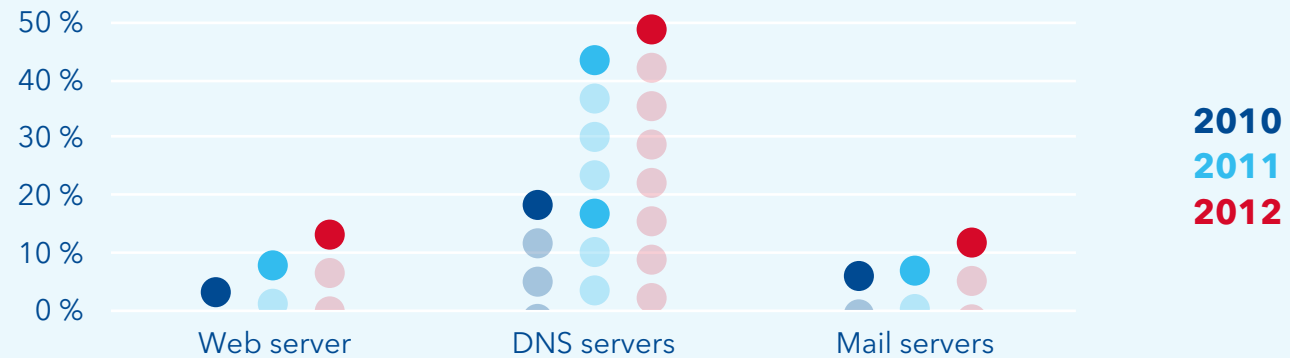
5.2.2. DNSSEC Support

DNSSEC is an extension of the domain name system (DNS) which increases its security. DNSSEC technology assures users that the information obtained from DNS has been provided by the correct source, is complete, and its integrity has not been compromised during the transmission.

DNSSEC has been available in the Czech national domain .CZ since 2008. The number of domains secured with this technology keeps growing, partially thanks to cooperation with registrars. With its share of signed domains, the Czech Republic ranks among world leaders. In addition to registrar support, DNSSEC is also gradually being deployed by major Internet service providers in the Czech Republic, making this system fully operational for most Internet users.

2012
2011
2010
2009
2008

0 %   5 %   10 %   15 %   20 %   25 %   30 %   35 %   40 %

5.2. **Support of Internet Infrastructure**
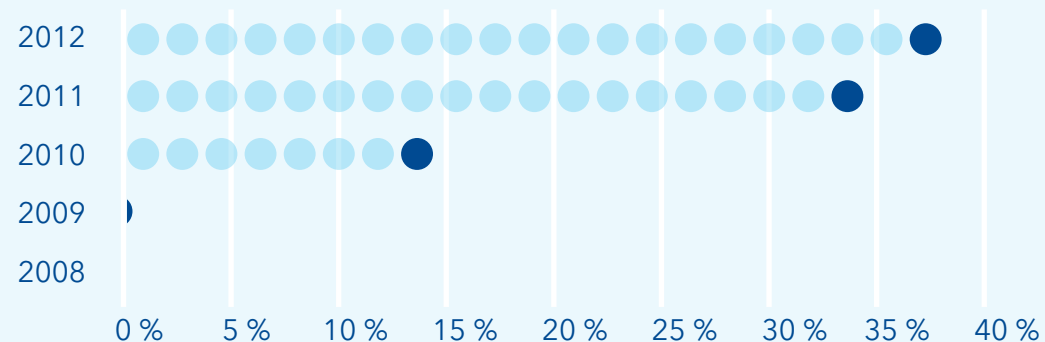
5.2.3. Support of Basic Internet Infrastructure

In 2012, the CZ.NIC Association continued to operate mirrors of F and L root servers. These are mirrors of two of the thirteen root name servers underpinning the Internet domain name system (DNS). Their operation improves not only the security and stability of the root server system on a global scale, but also its availability in the European region.

In addition to the root servers, the Association's infrastructure is used to support developing registries by operating secondary name servers for their ccTLD. This option for national domain management is used by Angola and Tanzania.

Another form of supporting local Internet communities is hosting the websites of some non-profit organisations, e.g., the popular Linux distribution Ubuntu.

06
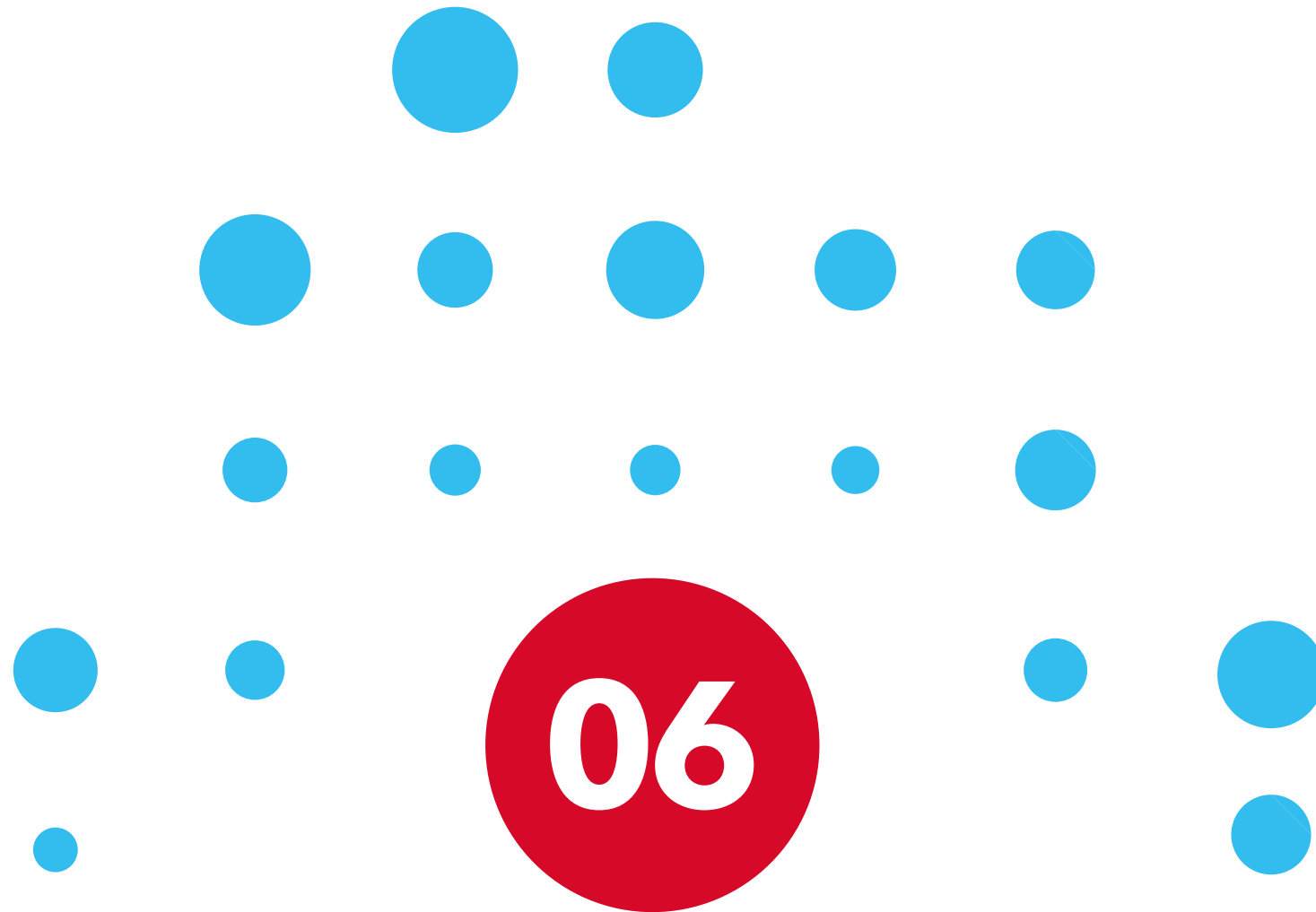
CSIRT Security Team

06. CSIRT Security Team

With the constantly growing significance of the Internet and the increasing number of users, the number of security incidents has also risen (abuse of a computer, network element, or network for illegal purposes – e.g., spam distribution, breach of copyright laws, phishing, eavesdropping on classified data), as has their severity. For this reason, there is an acute need to create, formalise, and improve the efficiency of protection against such attacks. CSIRTs (Computer Security Incident Response Teams) have been created for this purpose.

The CZ.NIC Association, with its long experience in projects in the field of Internet infrastructure, has joined in the support of the activities of security teams on the level of the government and the academia. The Association also operates its own CZ.NIC-CSIRT team, which is responsible for resolving incidents within AS25192 and incidents affecting the nameservers of the .CZ and 0.2.4.e164.arpa domains.

6.1. CSIRT.CZ – National CSIRT Team of the Czech Republic

The main objective of the CSIRT.CZ team is to resolve incidents related to cyber security in networks operated in the Czech Republic. The team collects and evaluates data about reported incidents, passing those incidents to people responsible for the operation of the network or service where the incident occurred, or providing coordination and assistance.

In its activities, it cooperates with bodies at the national (National Security Authority, government CSIRT, academic CSIRTs, ISPs, banks) and international level (national CSIRTs of other countries, the European Network and Information Security Agency ENISA, FBI), exchanging information on individual incidents and the means of their resolution on the basis of mutual trust.

The CSIRT.CZ office also serves the role of the national PoC (Point of Contact) in the field of information technology and is a centre for education and the promotion of cyber security.

6.1. CSIRT.CZ – National CSIRT Team of the Czech Republic

Based on an agreement with the Ministry of the Interior of the Czech Republic and on the signing of a joint memorandum, the CZ.NIC Association assumed responsibility for the operation and security of the national CSIRT of the Czech Republic on 1 January 2011 in response to the termination of the research project under which the CSIRT.CZ team had been operating before. When the agenda of cybern security was transferred from the Ministry of the Interior to the National Security Authority, the memorandum was replaced by a similar document concluded between the CZ.NIC Association and the National Security Authority, effective as of 1 April 2012. For the future functioning of the CSIRT.CZ national team, a key issue was to negotiate confirmation that the CZ.NIC Association would operate the national CSIRT.CZ until the end of 2015.

Operation of the National CSIRT.CZ Team in 2012

In 2012, the national CSIRT.CZ focused primarily on the stabilisation and development of key services, i.e. receiving, resolving and coordinating the response to security incidents originating in or targeting computer networks and services operated in the Czech Republic, and on the continuation of cooperation on the national and international level in order to build trust and raise public awareness.

In the area of services, the CSIRT.CZ national team was primarily working on the development of proactive services which in their current form obtain information on security incidents related to networks operated in the Czech Republic from a coordinating partner, the CESNET Association, and from publicly available sources using the IDS.CZ and MDM tools.

On the national level, the team continued to maintain the already established cooperation framework of the CSIRT.CZ Working Group, which significantly contributed to the creation of the prepared Cybern Security Act, and the E-CRIME Working Group; it also worked on forging new relationships and building the trust of local security teams operating in the networks of major ISPs, banks or registrars (e.g. the Active24-CSIRT team newly established in 2012).

On the international level, members of CSIRT.CZ took part in two prestigious exercises: Cyber Europe 2012 organised by the European Network and Information Security Agency ENISA and NATO Cyber Coalition 2012. Other major international activities included the organisation of the TRANSITS II training event and the transfer of experience to the Romanian CERT.

CSIRT.CZ – National CSIRT Team of the Czech Republic

Brief Operation Statistics for 2012

The total number of handled security incidents was 330.The following table evaluates the individual incidents by the success rate of their solutions:

closed – resolved	161
closed – we are informed	32
closed – positive change	130
closed – notification	0
closed – unresolved	7
closed – unable to resolve	0

Statistics of incidents by type:

Botnet	8
Copyright	1
Crack	0
DOS	68
IDS	3924
Malware	19
Phishing	159
Portscan	1
Probe	12
Spam	43
Trojan	5
Virus	1
Other	13

6.2. CZ.NIC-CSIRT

The CZ.NIC-CSIRT team is responsible for resolving incidents affecting the nameservers of the .CZ and 0.2.4.e164.arpa domains. Under the terms of its registration, the CZ.NIC Association is entitled to invalidate the delegation of a domain name if the name is used in a fashion that endangers national or international computer security, particularly if through the domain name or through the services which are made available there harmful content (especially viruses or malware) is distributed, if the content of a different service is feigned (especially phishing), or if the hardware that is made available through the domain name becomes a control centre of an interlinked hardware network distributing harmful content (especially botnet).

Activities of CZ.NIC-CSIRT in 2012

In addition to resolving common incidents, the team, together with the national CSIRT.CZ and the CZ.NIC Laboratories research centre, predominantly handled reports of infected sites in the .CZ domain. These reports, which come from publicly available sources, are processed by an internal application. Members of CZ.NIC-CSIRT then resolve the incidents with the holders or maintainers of the affected domain. In 2012, many security incidents of various types were handled on more than 2,200 .CZ domains.
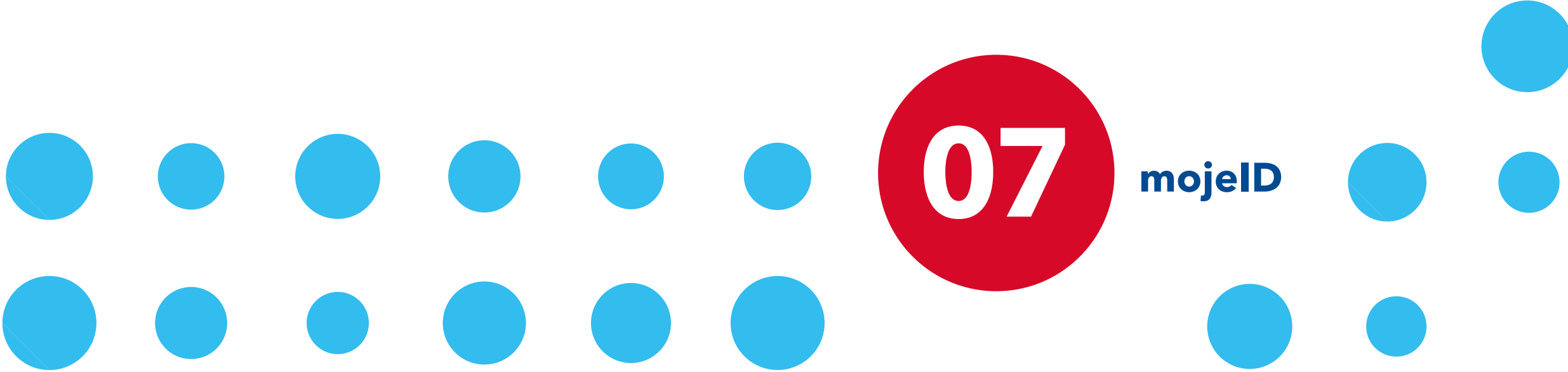
07 mojeID

07. mojeID

One name, one password, one identity.

7.1. What Is mojeID?

MojeID is a unique service that has been allowing Czech Internet users to use one set of credentials to log in to different websites and electronic services for three years now.

With mojeID, Internet users no longer have to create new accounts and repeatedly go through the registration process; service providers on the other hand gain not just increased user convenience but also verified information on their visitors, which bring additional benefits.

The mojeID service is based on the OpenID technology, but includes unique features other OpenID services do not have, such as sharing user identity data during each login and verifying users with different methods for different levels.

In the development of this service, emphasis was placed on the security and trustworthiness of the entire system as well as on the protection of personal data. The registry of user details is protected on the same level as the domain registry, and users themselves can define which details from their profiles can be hidden from the given provider each time they log in with their mojeID. This way, users have control over their data and know what information has been provided to each entity.

7.2. Current State and Support of the mojeID Service

In 2012, development of the mojeID service focused on acquiring new users as well as on increasing support of new electronic services, including in sectors where mojeID had not been used so far. To increase security, a new login option of using a One-Time Password (OTP) was deployed in 2012.

Among the most significant tools of mojeID support was the incentive programme, which gives financial rewards to providers for every new user who opened a mojeID account in 2012. Also partially linked to the verification level, the reward was temporarily increased towards the end of the year. The forty-four providers who took part in the incentive programme in 2012 brought in over 122,000 users. In part thanks to this programme, the mojeID service reached a total number of 164,000 users, almost four times the figure from 2011.

Among providers, mojeID spread to sectors other than electronic shops and news sites in 2012. The most significant new implementations were deployed in libraries in collaboration with the developers of library systems (Moravian Library, University Library of the Technical University of Liberec), in community servers such as Jizdomat.cz and Votocvohoz.cz and by administrators of Nova TV portals. Other important implementations of mojeID can be found in the client sections of many .CZ domain registrars (Active24, IGNUM, ZONER software, INTERNET CZ, Web4U, AERO Trip PRO, ASPone, GENERAL REGISTRY, Gransy, ONE.CZ, NEW MEDIA GROUP, KRAXNET, Stable.cz, TELE3 and 1X).

08 CZ.NIC Laboratories
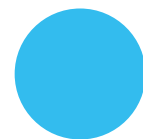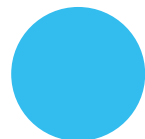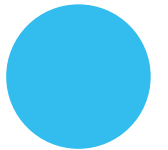
08. CZ.NIC Laboratories

8.1. Introduction

The CZ.NIC Laboratories are a separate organisation focused on research and development, with a specialisation in research of the Internet, Internet protocols, analyses of network operations, active and passive monitoring and designing prototypes for further development within the CZ.NIC Association.

The work of the Laboratories targets both local and foreign Internet communities with which they closely collaborate particularly in the research of new technologies and their deployment in practice.

8.2. Activities in 2012

In 2012, the activities of the Laboratories were focused on the development of current as well as new projects benefiting the Internet community.

8.2.1. Ongoing Projects and Their Development

BIRD

The daemon for dynamic routing of the IP protocol is intended for Linux and BSD. The project began at the Faculty of Mathematics and Physics of Charles University, and the CZ.NIC Labs are participating in its further development. According to a survey by EURO-IX, an association of the world's largest Internet Exchange Points (IXP), BIRD is the most widely used route server software deployed at 41% exchange points (15 of 37), including the three largest peering centres in Europe: DE-CIX in Frankfurt, LINX in London or AMS-IX in Amsterdam..

Knot DNS

An authoritative DNS server that is being developed by the CZ.NIC Labs. In 2012, this server managed to achieve the best performance (qps) from available open source solutions (BIND, NSD) without compromising functionality and standards support. Knot DNS was introduced at the RIPE 63 conference in Vienna, where it was welcomed with great enthusiasm. In 2012, the first stable version Knot DNS 1.0 was released, providing root zone support and many other features. In the autumn, version 1.1 was released, bringing further increases in speed together with significant optimisation of incremental zone transfers. Knot DNS is currently also being used as an authoritative DNS server for the Czech domain.

DNSSEC Validator

An add-on for Internet browsers that graphically shows whether a domain is secured by DNSSEC technology. The first version of the validator for Mozilla Firefox was released in 2010; in 2011, a version for Google Chrome was added. In 2012, the add-on was also ported to Internet Explorer, achieving full coverage of the world's most widely used web browsers. A new version was also released, moving DNSSEC validation directly to the end user's computer.

Multi-Platform Interface for Accessing e-Government Data Boxes

As part of the support of Internet infrastructure and free and open-source software, CZ.NIC Laboratories developed an interface for accessing the Data Box Information System (ISDS) in 2010. The Datovka software package is currently available for users of personal computers running Linux and Windows; iDatovka exists for users of mobile devices such as tablets or smart phones. In 2012, a new version of Datovka was released for users of Android operating systems; in combination with iDatovka for iOS X, the software is now available for the most popular mobile platforms. The Labs were also releasing continuous updates of new versions throughout 2012, which, among other things, greatly improved accessibility for users with disabilities.

HTML Widget

The IPv6 Widget is another project of the CZ.NIC Laboratories intended to support the spread of new Internet technologies, namely IPv6 and DNSSEC, among regular users of the Internet. The widget supports almost all major browsers (Internet Explorer, Mozilla Firefox, Google Chrome, Safari, and others that support the Cross-Origin Resource Sharing technology).

The HTML Widget is offered as free and open-source software that can be added to websites to show visitors information about their IPv6 and DNSSEC support. In addition to showing this information visually, the widget can also compare the speed of connection via IPv4 and IPv6.

Education at the CZ.NIC Academy

Lab employees make significant contributions to education at the CZ.NIC Academy, leading courses focused on DNS and DNSSEC, the IPv6 protocol, the BGP routing protocol, and SIP protocol Internet telephony. They also give lectures at Czech universities and professional conferences at home and abroad.

MDM – Malicious Domain Manager

Developed primarily for security teams of the CSIRT type MDM (Malicious Domain Manager) is a tool that collects information about malware in the Czech domain space, enables simple communication with the responsible parties and monitors the progress of the solution. The tool was introduced to the international community at the FIRST/TF-CSIRT Technical Colloquium conference in Rome in 2012 and subsequently adopted by the national CSIRT of Slovakia, where it is used in everyday operation.

Creation of Internet Standards and International Collaboration

Employees of the CZ.NIC Laboratories are active participants of the IETF (Internet Engineering Task Force), which, among other issues, also deals with the creation of Internet standards (known as RFCs, Requests for Comments). In 2012, one of its newly approved standards was RFC 6594 led by the Head of CZ.NIC Laboratories Ondřej Surý. RFC 6594 describes the support of latest SSH keys using the ECDSA algorithm in DNS records of the SSHFP type. Another standard that the CZ.NIC Association took part in is RFC number 6698, which concerns new DANE technology that enables the verification of certification authorities on the basis of DNS. This standard was developed in the DANE (DNS-based Authentication of Named Entities) working group chaired by Ondřej Surý and a Google representative.

Other significant activities of CZ.NIC in IETF include cooperation on the specification of core data models in the YANG language primarily intended for use with the NETCONF protocol.

8.2.2. New Projects

DNSCheck

DNSCheck is a tool that was developed to let users monitor, measure and hopefully also understand the operation of the Domain Name System (DNS). After a domain (zone) is added, DNSCheck verifies whether it is set up correctly by traversing DNS from the root (.) to TLD (Top Level Domain, such as ".CZ") and finally to the name server, which carries information about the specified domain (e.g. "nic.cz"). During this verification, some other tests are performed as well (checking host connectivity, validity of IP addresses or DNSSEC signatures).

KATR

A router catalogue providing reviews of routers for home use. The main goal of the catalogue is to test support of new technologies (IPv6, DNSSEC) in end devices and provide independent information to users.

Unified CZ.NIC Statistics

A new portal was launched in 2012, offering a variety of statistical information related to the Czech domain. This information includes the current number of domains and, for example, the share of individual registrars, the state of IPv6 and DNSSEC implementation and the health of the Czech domain determined with the DNSCheck tool.

09 Promoting Education and Awareness

09. Promoting Education and Awareness

Integral parts of the Association's activities are educational and awareness-raising activities intended to promote better qualitative and quantitative use of the Internet as a tool for work, self-development or leisure time. The individual educational activities organised in 2012 targeted both the lay and professional public with the objective of strengthening the stability and security of the Internet.

Activities in 2012

9.1. Communication with the Public

The communication strategy of the Association is to actively provide information and comments in which the organisation and its employees share their views on the current projects of CZ.NIC as well as trends in the field of Internet and new technologies. The main topics in 2012 were primarily the introduction of the new gTLD, the ACTA agreement, exhaustion of IPv4 addresses and the transition to IPv6, the registration of .CZ domain number one million and the world WCIT conference in Dubai, where regulation and monitoring of the Internet was discussed.

Communication with the public also takes place across several communication channels, and in addition to active cooperation with the media, the Association uses its own distribution resources. In 2012, CZ.NIC employees published a total of 24 articles in printed (e.g. Computerworld) and electronic media, particularly Lupa.cz and Root.cz. Ondřej Filip, executive director of the CZ.NIC Association, was also a guest on a number of television programmes and broadcasts on the ČT1 and ČT24 channels (News, ČT24 Economics, Hyde Park, etc.).

Since 2008, CZ.NIC has kept a very popular Internet blog, selected as a quality source of information by the "WebArchive – Czech Web archive" project and archived several times a year. In 2012, there were 99 posts published on the blog, which is 39 more than in the previous year.

In addition to the blog, the CZ.NIC Association is also active on social networks and communicates with domain holders and others on Facebook, Twitter and Google+.

9.1. **Communication with the Public**

Here subscribers and fans of CZ.NIC receive updates about official releases or information on other interesting events and projects from the Association's sphere of interest. The communication channel spectrum of course also includes the .news bulletin, a chronicle of CZ.NIC published twice a year.

A new tab entitled "News" has been created primarily for journalists on the main page of www.nic.cz, where all the official communication of the Association is posted.

9.2. **Changing the Visual Identity**

After five years, the CZ.NIC Association decided to refresh its visual identity, including not only its new logo, but also a new .CZ brand, which should primarily help registrars who promote the Czech national domain among their end customers. The introduction of a new corporate identity is gradual; in 2012, the website www.nic.cz, including the blog, was redesigned and the first promotional merchandise was made. Implementation of the new corporate identity will continue in 2013.

9.3. **"What's the Internet For" Educational Series**

To increase awareness of domains, Internet technologies and use of the Internet among the general public, the CZ.NIC Association together with Czech Television prepared a series of educational videos entitled "What's the Internet For", supported also by communication on social networks and a special website www.jaknainternet.cz where visitors can find more information. A total of 40 episodes were aired during October and November on subjects such as computer passwords, shopping over the Internet, encryption and Internet technologies such as IPv6, DNSSEC and the "Internet of Things". According to a survey by the Markent agency commissioned by the CZ.NIC Association, 35 % of respondents are aware of this series. Most of them consider it informative (94 %); 64 % of respondents said it had helped them learn new things.

The CZ.NIC Academy Educational Centre

Four years ago, the CZ.NIC Academy joined the ranks of places offering the latest relevant information from the world of the Internet, Internet technologies and infrastructure, while also providing an opportunity to try things out in practice on high-end equipment located at the Association's premises specially adopted for this purpose.

In 2012, more course types were opened, focusing this time on specific audiences primarily from public administration. The courses were tailored to the Police of the Czech Republic and its departments as well as representatives of IT desks of ministries in order to support their transition to IPv6. Customised courses providing unique content in the Czech Republic contributed to a total increase in the number of students at the Academy.

In the summer, the CZ.NIC Academy organised two special courses for secondary school teachers of ICT subjects. The programme entitled "Internet Technology for Teachers" was accredited by the Ministry of Education, Youth and Sports in 2010.

Throughout the year, the Academy organised 27 individual courses, with 342 participants in total. This represents a 12% increase compared to 2011.

9.4. The CZ.NIC Academy Educational Centre
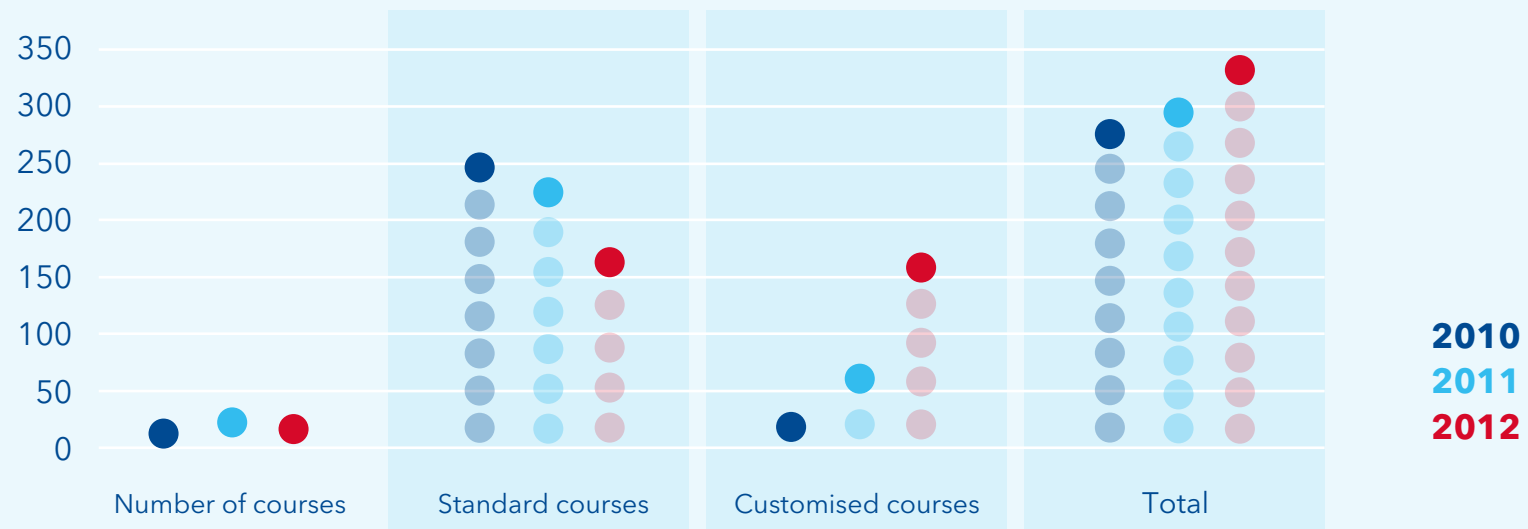
List of all courses provided by the CZ.NIC Academy in 2012:

	Course title	Number of courses	Number of students
Standard courses	DNSSEC – securing DNS	2	15
	Implementing IPv6	6	76
	IP Telephony – the SIP Protocol	2	17
	The Principles and Administration of DNS	2	22
	The Public Key Infrastructure (PKI) – two-day	2	17
	The Public Key Infrastructure (PKI) – one-day	1	6
	The BGP Routing Protocol	1	20
	The World of the Internet	1	10
Customised courses	IPv6 Course for Public Administration	2	11
	Course for Czech Police	6	120
	Course for Teachers	2	28
	Total	27	342

9.5. Conferences

In collaboration with its partners, the CZ.NIC Association organised two domestic conferences in 2012 on the Internet and new technologies.

Symbolically on the "World IPv6 Day", 6 June 2012, the National Technical Library in Prague hosted the "IPv6 Day" conference, primarily organised to support the transition to the new Internet Protocol version 6. In addition to employees of CZ.NIC, the conference also featured representatives of its partners, EURid and NIX.CZ, and delegates from the government, academic and commercial sectors, including telecommunications operators. The conference included practical workshops, one focusing on the OpenWRT Linux distribution and another on the testing and behaviour of home routers in IPv6 networks.

In November, the fifth year of the traditional "Internet and Technology 2012" conference took place. Organised at the representative premises of the Faculty of Mathematics and Physics of Charles University in Prague (MFF UK), this year's event focused primarily on new projects related to Internet technologies, including those created at the CZ.NIC Laboratories and in the academic sphere. The partners of the conference were the CESNET association and MFF UK.

Throughout the year, employees of the CZ.NIC Association also actively participated in many domestic conferences such as EurOpen, ICT Day – Cyberspace Security, ISSS (Internet in Government and Local Administration) and LinuxAlt.

9.6. Education Activities at Schools

For five years now the Association has been giving lectures at secondary and tertiary institutions in the Czech Republic on how the Internet works, on domains, the IPv6 and DNSSEC technology and mojeID.

There are two types of lectures: technical lectures intended primarily for students in the upper classes of specialised secondary schools, secondary schools with a general focus and tertiary institutions, which provide information about DNS and the latest technologies related to domain names; and non-technical lectures focusing on an introduction to domains, Internet security and the issues of intellectual property in relation to Internet content. These lectures also inform students and teachers about the advantages of having one's own Internet domain, copyright issues, and the possibilities and pitfalls of Internet media.

The non-technical presentation entitled "A Handbook for Using the Internet" is intended not only for students of secondary schools, but also for pupils in the final years of primary schools.

9.7. CZ.NIC Book Publication

The "CZ.NIC Publications" represent another of the awareness-raising and educational activities offered by the CZ.NIC Association, publishing professional literature by Czech and foreign authors. Information about CZ.NIC Publications and the published books is available at knihy.nic.cz. In 2012, one new book was published, Tvorba open source softwaru (Producing Open Source Software) by Karl Fogel, together with a third, revised edition of IPv6 by Pavel Satrapa. All books of CZ.NIC Publications are available as printed copies as well as a free electronic downloads.

9.8. Seminar for Law Professionals

Traditional educational and awareness-raising activities also include a seminar for law professionals entitled "Domain Names and the Law – News from the Czech Republic and Abroad". It was thematically intended primarily for attorneys and corporate lawyers who deal with domain name issues in their practice. The fifth year of the seminar in June 2012 was attended by over 40 law professionals.

10

Cooperation and Partnerships

10. Cooperation and Partnerships

The Internet is without any exaggeration the most important instrument of communication today, connecting tens of millions of users on all continents including Antarctica. We often hear that the Internet has no borders and does not fall within the jurisdiction of any government. This however does not mean the Internet is uncontrolled or without rules. Unlike in many other fields, however, these rules are formulated by the Internet community, a large family of supporters and fans of this worldwide network. To ensure that the efforts of any single member or organisation aren't in vain, mutual cooperation is required both on the national and international level.

Cooperation with domestic partners helps find the most acceptable system of national domain administration for Czech users while assisting, primarily through the projects of our Laboratories, with the spread of new technologies and development of the information society.

International cooperation not only helps monitor global trends, but with the active participation of the Association's employees also contributes to their creation and to shaping the future of technologies that affect our everyday lives.

With their high levels of professional knowledge, representatives of the Association, both management members and employees, are welcome guests at Czech and international professional forums.

10.1. Czech Republic

Due to the importance of its activities, CZ.NIC is a natural partner of the government as well as of special interest groups focusing on the Internet.

10.1.1. Cooperation with Public Authorities

The importance of the system of domain name administration and related Internet infrastructure is comparable to the importance of other critical infrastructures, e.g. in energy or transport. As the maintainer of the national domain, CZ.NIC considers protection of this infrastructure its duty and obligation towards the Czech Republic. For the purposes of future development, it is also a proud partner of many state institutions.

10.1. **Czech Republic**

In 2012, the CZ.NIC Association signed a Memorandum of Understanding in the field of the Internet and support of new technologies with the Ministry of Industry and Trade of the Czech Republic and a memorandum with the National Security Authority based on which the CZ.NIC Association will be operating the national security team CSIRT.CZ until the end of 2015.

Due to the existence of disputes over domain names, cooperation between the CZ.NIC Association and the Arbitration Court attached to the Economic Chamber of the Czech Republic and the Agricultural Chamber of the Czech Republic is also quite important.

Other major partners of the Association from public administration include the Ministry of the Interior, the Czech Telecommunication Office and the Vysočina Region.

10.1.2. Cooperation with NGOs and Social Responsibility

Safer Internet.cz
The CZ.NIC Association is one of the partners of the Safer Internet.cz educational project, which aims to highlight the risks associated with using the Internet and to offer effective ways of defending against them. The project targets various user groups and employs illustrative examples to help form good Internet security habits.

People in Need
Other social activities of the CZ.NIC Association include support of the People in Need organisation and in particular its educational project "One World at Schools", offering documentary films together with supplementary teaching aids to schools to help them explain current issues of the world and modern history.

Helping the Animals
The CZ.NIC Association is a long-time contributor to the Prague and Zlín zoos, supporting the breeding programmes of the Southern Cassowary, a bird native to New Guinea and Australia. In the Czech Republic, there have been occasional sightings of its relative, the Domain Cassowary, a bird that has not yet been extensively studied. You can learn more about this peculiar species at www.kasuar.cz.

The Heart on Hand Endowment Fund
To support children from children's homes, the CZ.NIC Association became a partner of the 8th fund-raising concert of the Heart on Hand Endowment Fund that took place on 28 November 2012 at the National House in Prague – Vinohrady.

10.1. Czech Republic

10.1.3. Membership in Industry and Interest Organisations

ICT UNIE – Association for Information Technology and Telecommunications
A professional association of companies working in information and telecommunication technologies, partially representing the ICT industry of the Czech Republic and promoting the efficient use of ICT in all areas of life. A major partner of public administration, the ICT Union co-authors strategic documents, legislation and key decisions focusing on the development of ICT in the Czech Republic.

NIX.CZ
The largest neutral Internet Exchange Point (IXP) is an umbrella association for Czech and foreign Internet Service Providers for the purpose of interconnecting their networks. NIX.CZ is the largest IXP in the country and one of the most important ones in the world. The CZ.NIC Association is a member of NIX.CZ and takes an active role in seminars, workshops and other meetings organised by NIX.CZ. NIX.CZ is also a notable user of products of the CZ.NIC Laboratories, particularly BIRD.

Tuesday Business Network
CZ.NIC is a member of this independent association providing a platform for technology companies, investors and IT professionals to meet and share experiences.

10.2. Other Countries

Thanks to the activities of the Association on the international Internet scene, stakeholder foreign organisations are increasingly choosing CZ.NIC as a partner and the Czech Republic as the location for their meetings. The CZ.NIC Association welcomes this opportunity, as it gives representatives of the local Internet community easier access to interesting topics and the world's leading experts on the Internet.

10.2. Other Countries

10.2.1. Cooperation with Foreign Registers

Other maintainers of national domain name registers are natural partners of the CZ.NIC Association. In 2012, the Association signed a Memorandum of Cooperation with the maintainer of the national domain of Costa Rica (.cr); it also has very close relationships with registries using the FRED open-source system. In addition to Costa Rica, these are Angola (co.ao and .it.ao), Estonia (.ee) and the Faroe Islands (.fo).

10.2.2. Involvement in European Cooperation Projects

In accordance with its long-term objective of developing Internet technologies and the information society, the Association took part in the following projects supported by the European Commission in 2012:

GEN6 (Governments ENabled with IPv6)

The goal of this project launched in January 2012 is primarily to support public administration in the transition to a new version of the Internet protocol, IPv6. As part of the project, the CZ.NIC Association organised a course for IT specialists from the sector and several activities focusing on monitoring the preparedness of public administration in the Czech Republic and in Europe together with awareness-raising.

STORK 2.0 (Secure idenTity acrOss boRders linKed 2.0)

A project launched in April 2012 that focuses on the issues of cross-border recognition of electronic identification systems and the creation of the Digital Single Market. In the project, the CZ.NIC Association is primarily looking at the possibility of utilising mojeID and extending it further in terms of new users and services.

e-SENS (Electronic Simple European Networked Services)

The implementation of this project looking at the next stage of mutual recognition of electronic identification across various types of electronic services in Europe will start in April 2013.

10.2.3. Membership in Industry and Interest Organisations

CENTR (Council of European National Top Level Domain Registries)

A non-profit organisation associating maintainers of top-level domain names, both national and generic. The organisation focuses mainly on European registries, but there are also representatives of other, more distant regions – e.g., Canada and Japan. Representatives of the CZ.NIC Association, a member since 2001, regularly participate in meetings of the Admin (focusing on administrative and technical procedures in the registries), Legal & Regulatory (focusing mainly on issues connected with alternative dispute resolution, protection of personal data and other topics) and Marketing groups, as well as in technical workshops (Research & Development).

DNSSEC Industry Coalition

An organisation that strives to promote DNSSEC security technology worldwide. The goal of this organisation is to adopt a unified approach in promoting and implementing DNSSEC for all potential users, including the domain registers of national and generic TLDs.

DNS-OARC (The Domain Name System Operations, Analysis and Research Center)

A trusted platform that brings together key entities to share their experience from DNS operation, analysis, and research to be able to efficiently coordinate their activities, particularly those concerning the security of the system. For the first time in its history, the organisation elected a Czech as the chairman of its board of directors in late 2012 – Ondřej Filip, executive director of the CZ.NIC Association.

EURid (The European Registry of Internet Domain Names)

An association which, based on authorisation from the European Commission, administers the top-level .eu domain; CZ.NIC is an associate member and has a representative on its board of directors. In 2012, the CZ.NIC Association collaborated with EURid e.g. in the organisation of the "IPv6 Day" conference.

EuroISPA (European Internet Services Providers Associations)

With around 1,500 members, the European Internet Services Providers Association is the largest ISP organisation in the world. Its objective is to represent ISPs within the legislative processes of the European Union and facilitate the exchange of experiences between individual ISPs. The CZ.NIC Association has been a member of EuroISPA since 2008.

10.2. **Other Countries**

ICANN (Internet Corporation for Assigned Names and Numbers)

An international non-profit organisation founded in 1998 whose main objective is not only the administration and issuing of generic and national top-level domain names, but also the assignment of IP addresses. The CZ.NIC Association, as the administrator of the .CZ national domain, sends its representatives to regular meetings, and its specialists participate actively in working groups. On 24-29 June 2012, the CZ.NIC Association hosted the ICANN meeting in Prague attended by nearly 2,000 delegates from 60 countries. During the meeting, Ondřej Filip, executive director of the CZ.NIC Association, was appointed a member of the prestigious Security and Stability Advisory Committee (SSAC).

IETF (Internet Engineering Task Force)

Founded back in 1986, the organisation is directly linked to the birth of the Internet. It is made up of an international community of leading specialists, network architects, and representatives from the commercial sector. The IETF approves and promotes Internet standards, known as RFC documents, which govern the majority of Internet operations. Its meetings are also attended by many Czech experts from the academic and private sectors. In 2012, one of the approved standards, RFC 6594, was written by a Czech author – head researcher of CZ.NIC Ondřej Surý.

IGF (Internet Governance Forum)

The IGF is a free forum of all stakeholders from the public and private sector created by the UN in accordance with the conclusions of the World Summit on the Information Society (WSIS) in November 2005. IGF also includes the Multistakeholder Advisory Group (MAG), which aims to assist the UN Secretary General in preparing the forum. MAG has 50 members representing national governments, the private sector, civil society and the academic and technical communities. The Czech Republic has a single representative in MAG – CZ.NIC Association Executive Director Ondřej Filip.

RIPE NCC (Réseaux IP Européens Network Coordination Centre)

An independent non-profit organisation supporting Internet infrastructure. Among its key activities is the operation of RIR (Regional Internet Registry), which allocates Internet resources and related services (e.g. IP addresses) to its members. As one of its members, CZ.NIC takes part in regular meetings and also participates in other topical meetings and training sessions held by the organisation.

Trusted Introducer

One of the activities of the TERENA organisation, which joins CSIRTs in Europe and is a trustworthy centre for the exchange of sensitive information and know-how between the individual CSIRTs. CZ.NIC is a member and is listed among registered CSIRT teams.
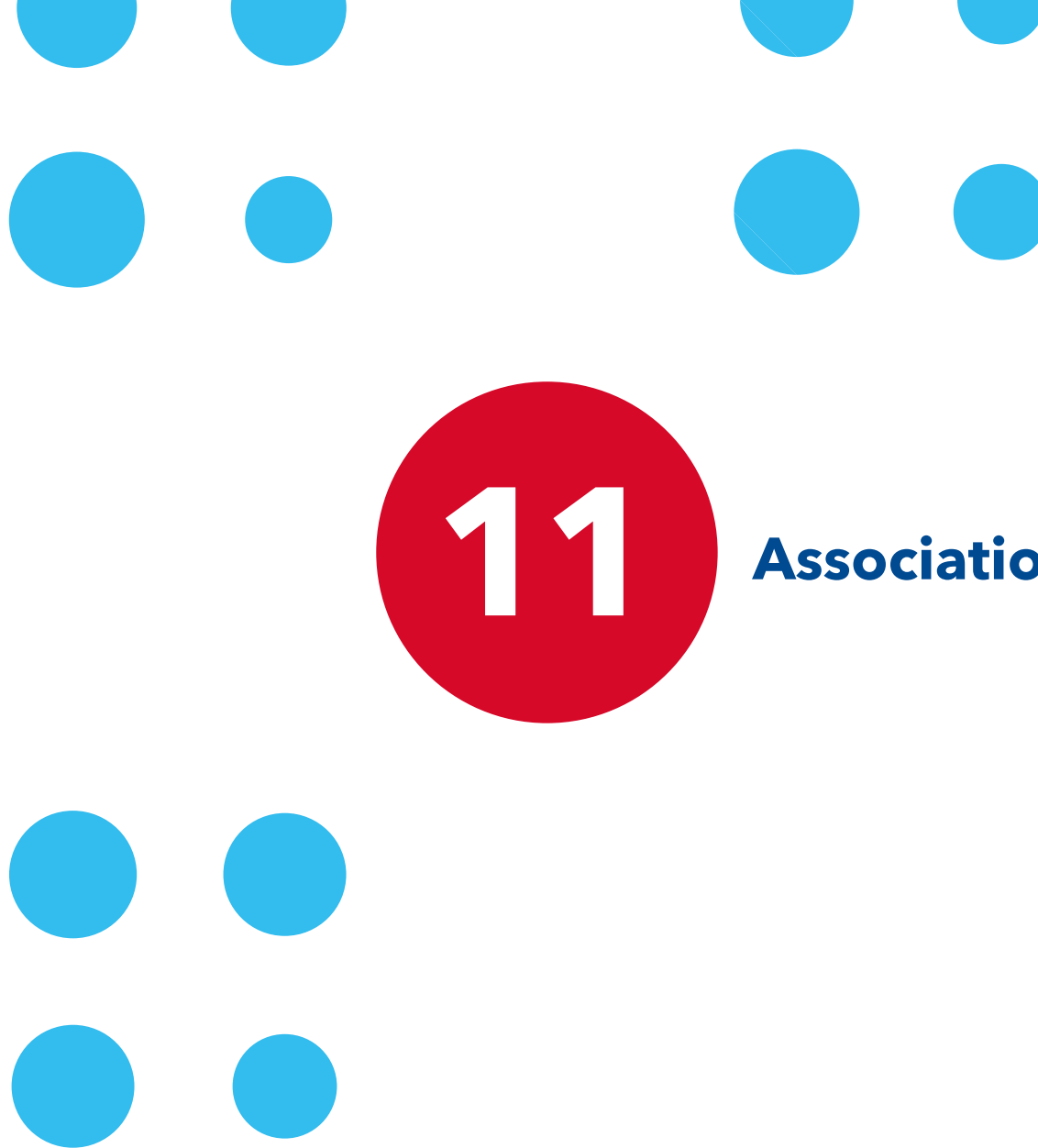
BIND (Berkely Internet Name Daemon) **Forum**

An association supporting the development of DNS software BIND.

ISC (Internet System Consortium)

An organisation supporting Internet infrastructure and the operator of the F-Root server.

11 Association Structure

11. Association Structure

11.1. Members

The Association's membership comprises a whole range of entities which make a significant contribution to the functioning of the Czech Internet. Among its members are representatives of Internet and telecommunications service providers, domain name registrars, publishers of Internet and print media, e-commerce businesses, and companies for whom the Internet and domain names are an important communication tool.

The CZ.NIC Association is one of the places where these representatives can meet and influence the future direction of the Czech Internet. The broad spectrum of business activities carried out by members and their involvement in the Association's activities, whether in the form of participation at general assembly meetings, working groups and workshops, e-mail conferences, or working directly within the Association bodies, enriches and expands the Association's knowledge portfolio and allows it to continually improve the efficiency of its management and react to the constant development typical for the Internet.

11.2. Membership Conditions

A member of the Association may be any legal entity fulfilling general membership conditions, including having seats or an organisational unit in an EU Member State, having possession of at least one domain name with the .CZ ccTLD and payment of an entry membership fee.

Association members are divided into three chambers: the Chamber of Domain Holders, the ISP Chamber, and the Chamber of Registrars. Special conditions for membership in individual chambers are set in the Statutes. The chamber arrangement benefits Association members, who are able, together with other similarly focused entities, to better define and defend their opinions and interests. This arrangement has also made the operation and negotiations of the Association bodies more efficient, particularly the Collegium and General Assembly.

11.3. Members and Their Structure

As of 31 December 2012, the CZ.NIC Association had a total of 106 members, which is 12 more than in the previous year.

11.3.1. Number of Members by Chamber

Most members (57%) are found in the Chamber of Domain Holders.

ISP Chamber
25,5 %

Chamber of Domain Holders
57,5 %

Chamber of Registrars
17 %
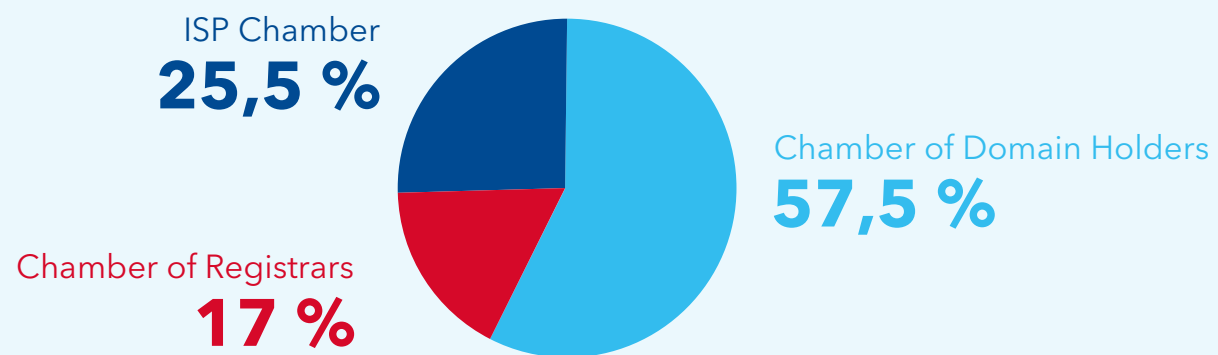
11.3.2. Development of the Number of Members by Chamber

Chamber of Domain Holders
ISP Chamber
Chamber of Registrars

2005 2006 2007 2008 2009 2010 2011 2012
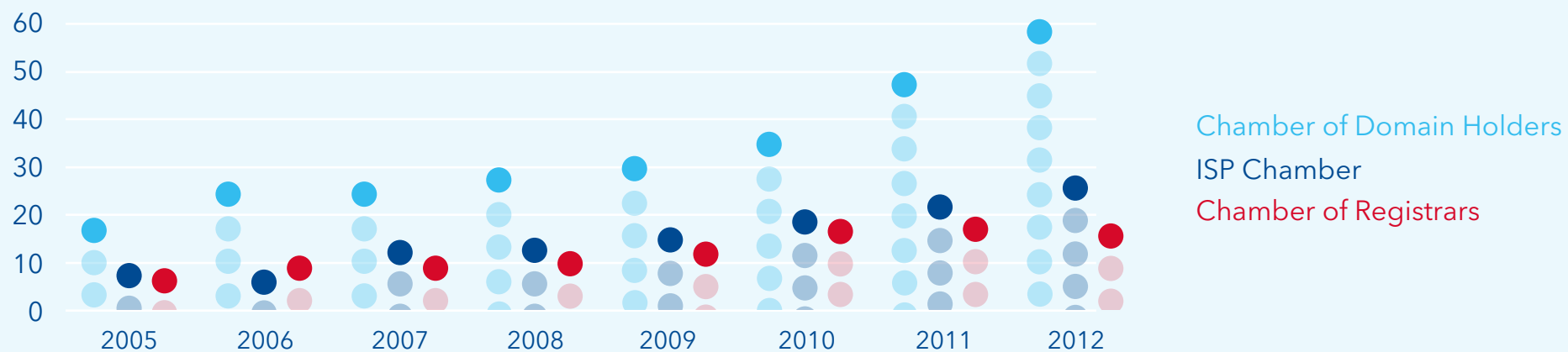
11.3. Members and Their Structure

11.3.2. Overview of Members by Chamber

Chamber of Domain Holders

ABRATICA s. r. o.	26108534	ICZ a. s.	25145444
Advio Network, s. r. o.	28565673	igloonet, s. r. o.	27713482
AKREDIT, spol. s r. o.	25797387	INBES, spol. s r. o.	14502593
ALENSA, s. r. o.	27179681	Intell.Net s. r. o.	27971546
AliaWeb, spol. s r. o.	26117363	Internet Info, s. r. o.	25648071
Asociace pro elektronickou komerci (APEK)	68684797	Internet Mall, a. s.	26204967
AUDITEL, s. r. o.	26775034	Kanlux s. r. o.	27804861
CD PROFESIONAL security agency, s. r. o.	25712713	Klíč, spol. s r. o.	28129377
CISCO SYSTEMS (Czech Republic) s. r. o.	63979462	Laurián s. r. o.	29018919
Com-Sys TRADE spol. s r. o.	16188781	MARIAS s. r. o.	26136139
CQK HOLDING a. s.	28405579	MASANTA.COM s. r. o.	25730533
CYBERSALES a. s.	26199653	MEDIA FACTORY Czech Republic a. s.	26288311
Datahost s. r. o.	26390973	Michal Krsek & partneři s. r. o.	27418570
DELL Computer, spol. s r. o.	45272808	MITE Infonet s. r. o.	25660292
ekolo.cz s. r. o.	27141659	Moonlake, a. s.	28924355
EXPLORER a. s.	26726653	NextiraOne Czech s. r. o.	26175738
Google Czech Republic, s. r. o.	27604977	NFX, z. s. p. o.	75093201
Greenlux s. r. o.	28608747	Nux s. r. o.	27234631
Holubová - advokáti s. r. o.	24686727	Občanské sdružení Ubuntu pro Českou republiku	22674608
i - registry s. r. o.	28451082	Orange Business Czech Republic s. r. o.	49620037
I. H. P. společnost s ručením omezeným	48117846	Orego finance s. r. o.	24718955
IBM Česká republika, spol. s r. o.	14890992	PharoCom s. r. o.	25172131

11.3. Members and Their Structure

PP Partners Prague, a. s.	28204671	Tech Ware spol. s r. o.	14891107
Pražský Účetní Servis s. r. o.	26740575	TIKWI s. r. o.	28917651
Q3, s. r. o.	26226073	Trustica s. r. o.	26514362
Seznam.cz, a. s.	26168685	Unie vydavatelů	15887081
Skymia s. r. o.	28238613	Unisys s. r. o.	48109291
Software602 a. s.	63078236	ÚVT, s. r. o.	25701118
Socha, spol. s r. o.	48291153	VIZUS.CZ s. r. o.	27155315
SuperNetwork s. r. o.	25492063	Webarium, s. r. o.	26089602
SVBsoft, s. r. o.	28523644		

ISP Chamber

2 connect a. s.	29007542	Informační a bezpečnostní agentura s. r. o.	64051641
ABAK, spol. s r. o.	40763153	INTERNEXT 2000, s. r. o.	25352288
BT Limited, organizační složka	70802025	IPEX a. s.	45021295
CASABLANCA INT s. r. o.	25079832	JHComp s. r. o.	26051362
CentroNet, a. s.	26165473	LAM plus s. r. o.	25129619
CESNET z. s. p. o.	63839172	MAFRA, a. s.	45313351
COOLHOUSING s. r. o.	14893983	Qnet CZ s. r. o.	25518097
ČD - Telematika a. s.	61459445	SkyNet, a. s.	25346687
České Radiokomunikace a. s.	24738875	STARNET, s. r. o.	26041561
Dragon Internet a. s.	27237800	Trestel CZ, a. s.	26177129
Družstvo EUROSIGNAL	26461129	T-Systems Czech Republic a. s.	61059382
Faster CZ spol. s r. o.	60722266	VOLNÝ, a. s.	63080150
FreeTel, s. r. o.	24737887	VSHosting s. r. o.	61505455
GTS Czech s. r. o.	28492170		

11.3. Members and Their Structure

Chamber of Registrars

1X s. r. o.	44632142	Media4web, s. r. o.	26735903
ACTIVE 24, s. r. o.	25115804	NEW MEDIA GROUP s. r. o.	26124611
banan s. r. o.	26867257	ONE.CZ s. r. o.	25503651
Dial Telecom, a. s.	28175492	ONEsolution s. r. o.	27710335
GENERAL REGISTRY, s. r. o.	26027267	Stable.cz s. r. o.	28741048
Gransy s. r. o.	28087755	TELE3 s. r. o.	26096960
IGNUM s. r. o.	26159708	Telefónica Czech Republic, a. s.	60193336
Internet CZ, a. s.	26043319	Web4U s. r. o.	26058774
KRAXNET s. r. o.	26460335	ZONER software, a. s.	49437381

11.4. Association Bodies

11.4.1. General Assembly

The General Assembly is the supreme body of the Association encompassing all members of the Association and which is divided into three chambers – the Chamber of Registrars, ISP Chamber and the Chamber of Domain Holders. Every Association member has the right to participate in a meeting of the General Assembly and present their ideas, opinions, and comments.

11.4.2. Collegium

The Collegium is an Association body consisting of members elected by the respective Chambers of the General Assembly and/or other persons. The powers of the Collegium include approving the budget and policies of the Association and electing or dismissing members of the board of directors and the supervisory board. The Collegium has a total of 21 members, of which 18 are elected by the individual chambers of the General Assembly and 3 are nominated by public authorities. Members of the Collegium are elected to serve three-year terms. Some changes were made to the list of Collegium members elected by the Chamber of Domain Holders in 2012.

Collegium members elected by the General Assembly from 1 January to 19 December 2012:

Collegium members representing the Chamber of Domain Holders:
Marek Antoš
Jan Hřebíček
Tomáš Maršálek
Jiří Peterka
Jan Redl
Jan Vetyška

At the General Assembly on 4 December 2012, two new members were elected, effective as of 20 December 2012. Jan Hřebíček and Tomáš Maršálek finished their term and were replaced by Štěpán Holub and Michal Pajr.

Collegium members representing the ISP Chamber:
Ondřej Filip
Tomáš Košňar
Petr Kuneš
Jiří Kysela
Zbyněk Pospíchal
Karel Taft

At the General Assembly on 4 December 2012, Jiří Kysela and Karel Taft were re-elected, effective as of 20 December 2012.

11.4. **Association Bodies**

Collegium members representing the Chamber of Registrars:
Zdeněk Brůna
Marek Erneker
Ilona Filípková
Petr Komárek
Martin Kukačka
Erich Syrovátka

At the General Assembly on 4 December 2012, Martin Kukačka and Erich Syrovátka were re-elected, effective as of 20 December 2012.

Collegium members nominated by public authorities:
Marek Ebert, the Czech Telecommunications Office
Iva Hatlapatková, the Ministry of Industry and Trade of the Czech Republic
Marie Moravcová, the Economic Chamber of the Czech Republic

11.4.3. **Board of Directors**

The board is a statutory body governing Association activities and acting in its name. Its powers include approving the rules for the registration of domain names or for provided services. The board of directors has five members elected for three years. Members of the board of directors are elected and dismissed by the Collegium.

Board members from 1 January to 31 December 2012:
Karel Taft (*1971), chairman of the board of directors
Marek Antoš (*1979), vice-chairman of the board of directors
Tomáš Košňar (*1965), member
Martin Kukačka (*1980), member
Jiří Kysela (*1955), member

11.4.4. Supervisory board

The supervisory board is a control body of the Association supervising the performance of the board of directors and the implementation of Association activities. The supervisory board has three members serving three-year terms.
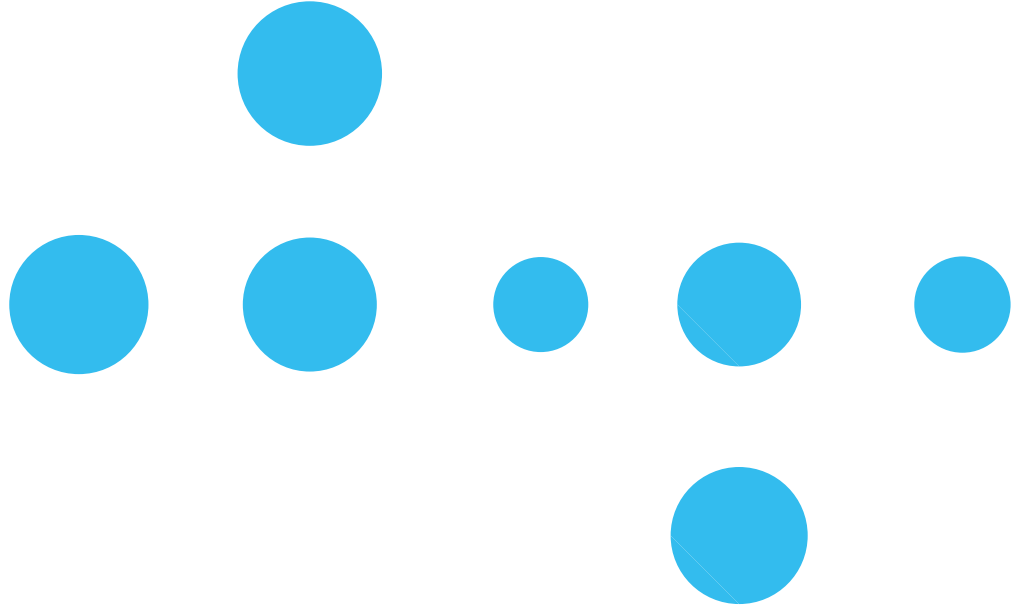
Members of the supervisory board from 1 January to 31 December 2012:
Jan Redl, chairman of the supervisory board
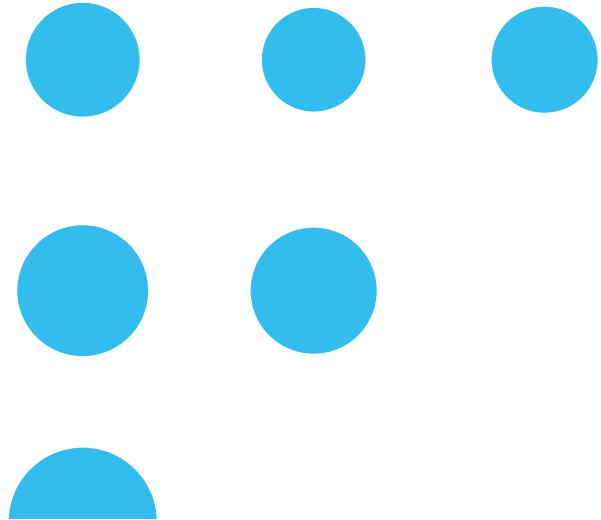Ondřej Fryc, member
Jiří Peterka, member

At the Collegium meeting on 4 December 2012, Jan Redl was re-elected chairman of the supervisory board, effective as of 16 December 2012.

12 Human Resources

12. Human Resources

The strength of the Association lies in the qualified and proficient employees who are necessary to fulfil the Association's objectives and to develop it further. It is no exaggeration to say that many of our employees are leading experts in their field with a domestic as well as international reputation.

To strengthen their competencies, all employees continuously receive further education in foreign languages, soft skills and professional skills to ensure they develop their maximum professional and personal potential and obtain knowledge and skills that can contribute to the further development of the Association.

12.1. State and Development of Employee Numbers

At the beginning of 2012, 47 employees worked at the CZ.NIC Association. By 31 December of the same year, there were 54 employees. The increase in the number of employees was primarily linked to the development of the Laboratories and the launching of new projects. Other human resources were required for the development of the mojeID service.

	1 January 2012	full-time equivalent	31 December 2012	full-time equivalent
Managers	6	6,00	6	6,00
The CZ.NIC Academy	1	0,50	1	0,50
Marketing/PR	4	4,00	6	6,00
Development	10	8,50	9	7,50
Network Administration	4	4,00	4	4,00
CZ.NIC Labs	11	8,55	15	12,25
Legal/Secretariat	1	1,00	1	0,50
Customer Support	7	7,00	8	8,00
CSIRT	3	2,20	3	2,20
EU Projects	0	0,00	1	1,00
TOTAL	47	41,75	54	47,95

12.2.1. Employee Structure by Education

Most employees of the Association have university-level education. The CZ.NIC Association also offers the opportunity to acquire professional experience to new graduates of universities; the Association attempts to create suitable conditions for them, including the location of the Brno branch.

Secondary
35,2 %

Other
5,5 %
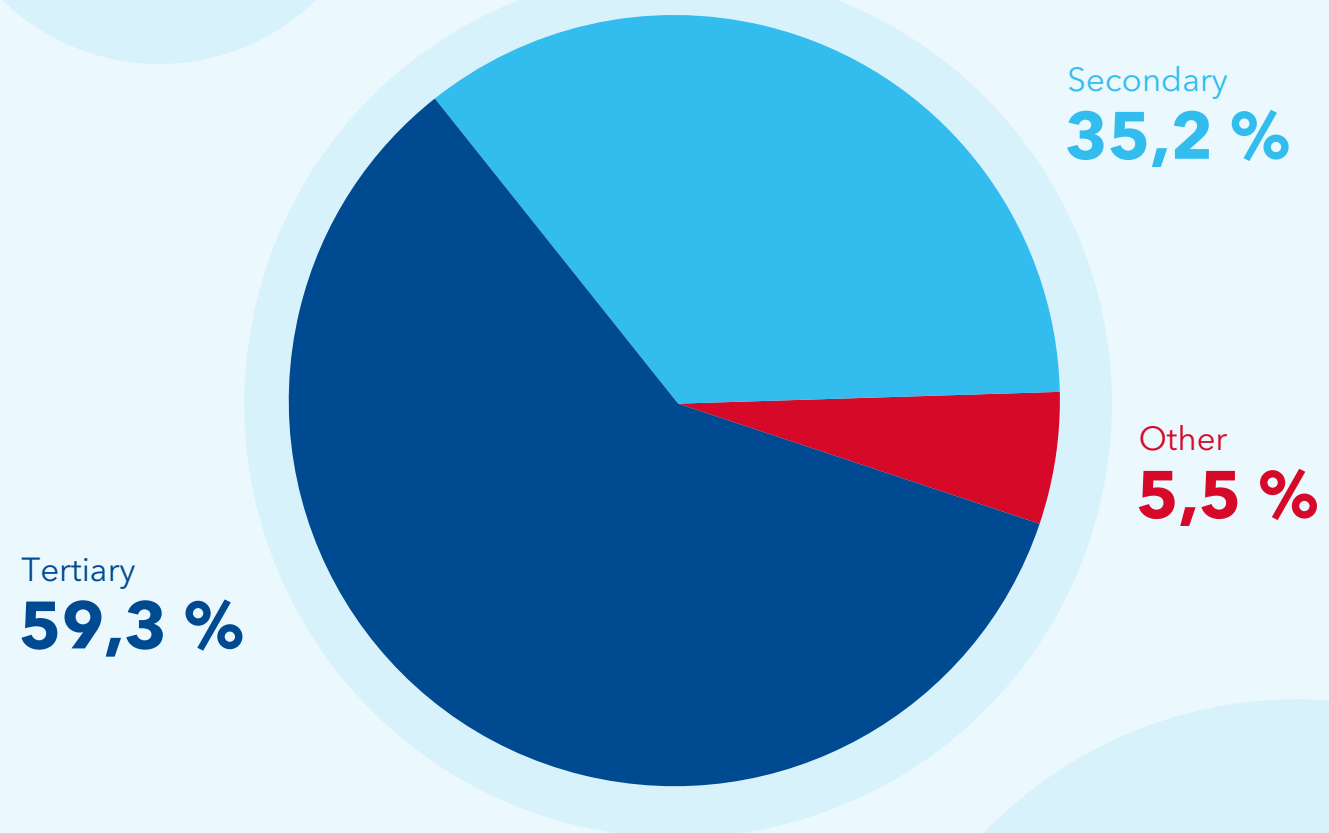
Tertiary
59,3 %

12.2.2. Employee Structure by Age

In terms of age structure, most employees are between 26-34 years; this is primarily caused by the high number of university educated employees and the support of tertiary school graduates.

25 or less
11,1 %

35 or more
38,9 %

26 - 34
50 %
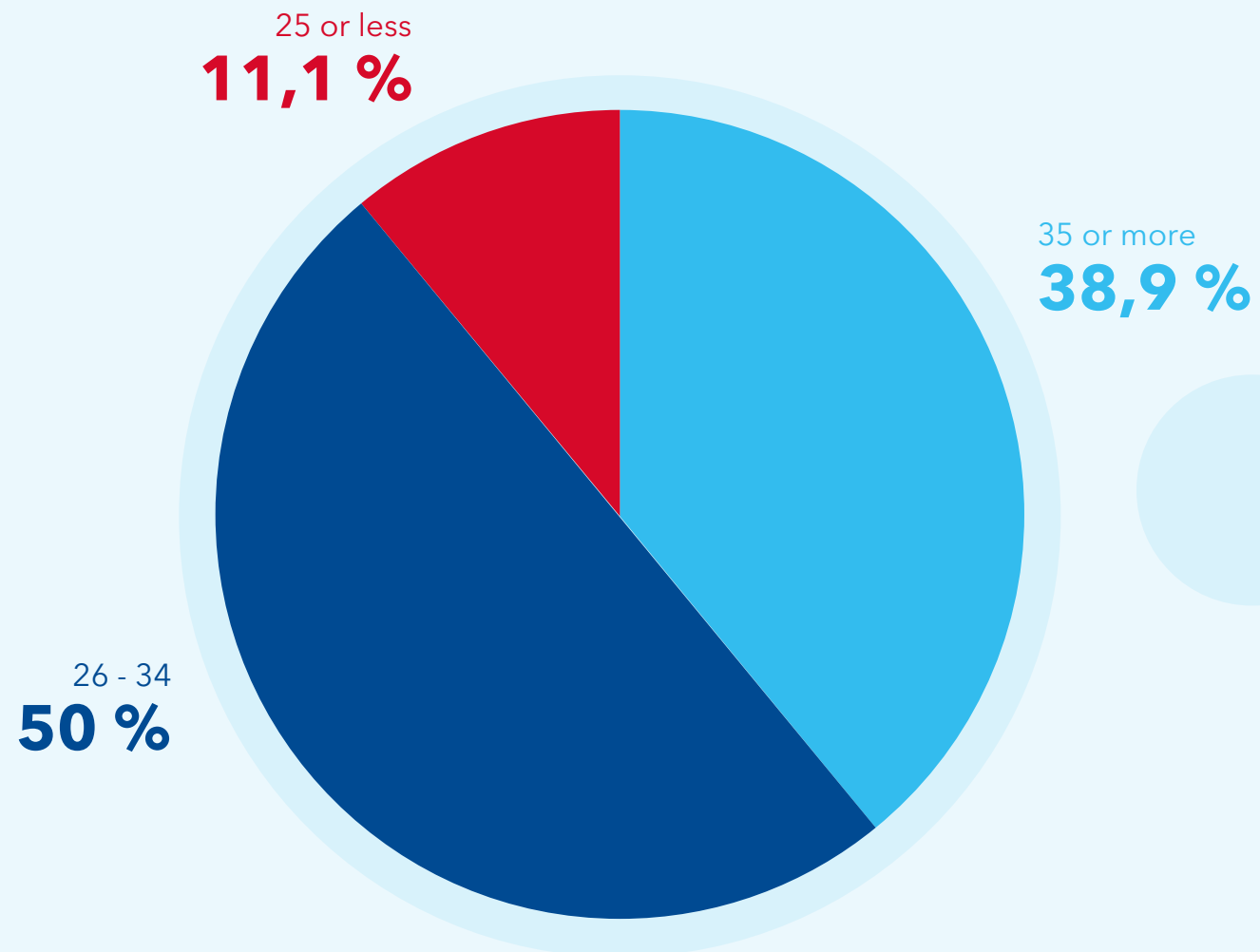
12.2.3. Employee Structure by Gender

When hiring new employees, the CZ.NIC Association promotes equal opportunity and the participation of women. Their involvement is also supported by favourable working conditions that allow them to find a balance between family and professional life. Due to the structure of graduates of technical tertiary schools, however, males are in the majority, as is the case at other technology companies.

women
18,5 %

men
81,5 %

Executive Director

PR Manager

EU Projects

Legal /Secretariat

Operations Director

Director of Marketing

Technical Director

Head of Research / R&D Manager

CZ.NIC-CSIRT Security Team | CSIRT.CZ

Customer Support

The CZ.NIC Academy

Marketing

Development

Network Administration

Quality Assurance

CZ.NIC Labs
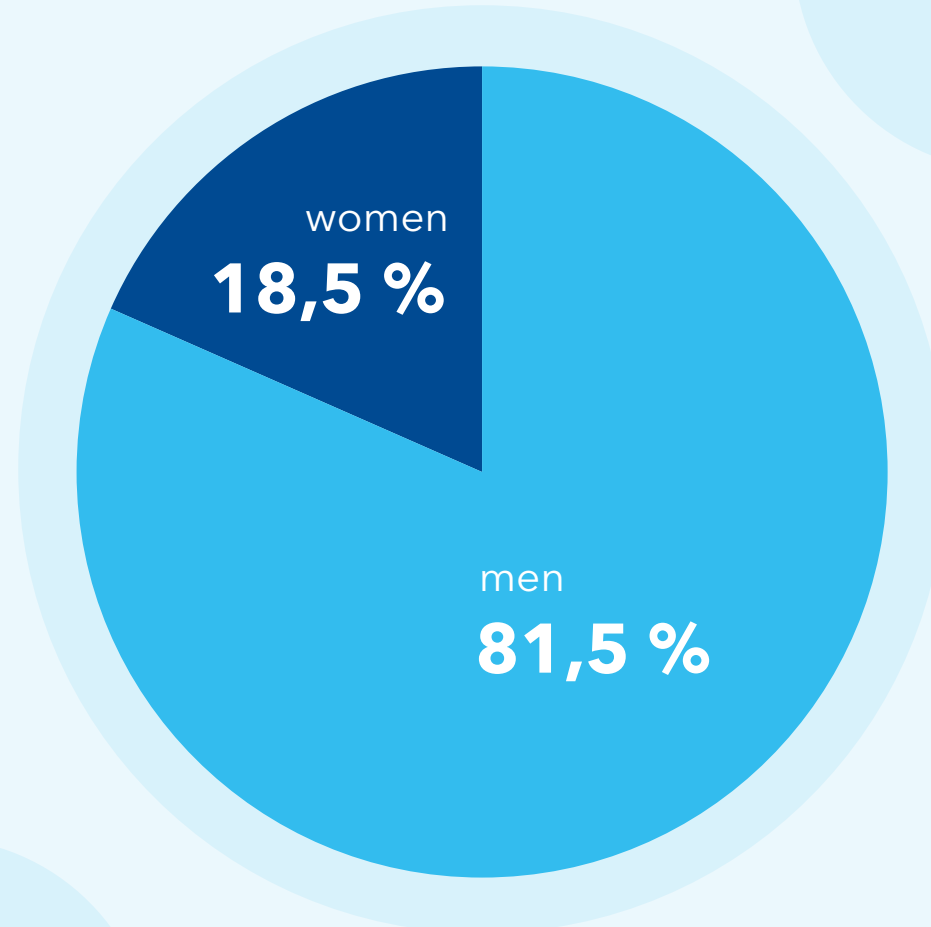
13. Selected Financial Indicators

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Income	137 632	139 167	133 050	155 848	119 376	140 994	137 751	136 998	141 912
Expenses	139 669	106 557	117 618	132 369	65 909	97 799	100 781	104 370	125 352
Profit after tax	-2 037	32 610	15 432	23 479	53 467	43 195	36 970	32 628	16 560

(in thousands of CZK)

Profit after tax

14. Balance Sheet

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total assets	100 982	147 926	168 026	171 222	221 778	275 087	312 202	361 566	387 674
Fixed assets	6 347	3 044	10 156	8 381	8 135	8 268	12 258	8 781	63 840
Intangible assets	1 841	1 179	3 210	3 806	1 522	0	0	0	300
Tangible assets	4 506	1 865	6 946	4 575	6 613	8 268	12 258	8 781	63 540
Financial investments									
Securities									
Current assets	94 251	144 882	156 678	161 456	212 200	265 160	292 563	351 125	322 087
Inventory				55	211	48	184	278	189
Long-term receivables			106		715	1 196	1 351	1 379	1 335
Short-term receivables	880	852	2 872	1 018	1 051	1 851	4 338	12 180	10 676
Financial assets	93 371	144 030	153 680	160 383	210 223	262 065	286 690	337 288	309 887
Other assets	384	0	1 192	1 385	1 443	1 659	7 381	1 660	1 747
Total liabilities	100 982	147 926	168 026	171 222	221 778	275 087	312 202	352 036	387 674
Own equity	-6 014	38 624	54 056	77 535	131 181	174 197	211 167	243 795	261 094
Capital stock									
Capital funds									
Funds from profit	7 627	7 627	7 627	7 627	7 627	7 627	7 627	44 597	44 597
Profit or loss from prev. years	424	-1 613	30 997	46 429	69 908	123 375	166 570	166 570	199 937
Profit or loss for acc. period	-2 037	32 610	15 432	23 479	53 646	43 195	36 970	32 628	16 560
External sources	16 786	26 831	18 753	13 706	16 764	13 851	14 877	15 988	17 684
Reserves								9 530	884
Long-term liabilities					193				241
Short-term liabilities	16 786	26 831	18 753	13 706	16 571	13 851	14 877	15 988	16 559
Bank loans									
Other liabilities	78 182	82 471	95 217	79 981	73 833	87 039	86 158	92 253	108 896

(in thousands of CZK)

15. Profit and Loss Account

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Output and sales	136 250	139 020	131 864	147 564	108 671	109 764	120 980	127 135	134 030
Of which revenue and sales	136 250	139 020	128 952	144 740	108 671	109 764	120 980	127 133	134 144
Own work capitalized			2 912	2 824	0	0	0	0	0
Prod. consumption and costs	124 497	82 074	94 067	88 668	19 509	27 572	37 451	44 440	70 414
Added value	11 753	56 946	37 797	58 896	89 162	82 192	83 529	82 693	63 616
Staff costs	5 923	6 053	11 930	20 193	20 567	27 113	31 520	39 227	43 328
Depreciation of assets	4 294	4 944	4 900	6 042	5 851	5 069	6 980	6 145	4 183
Clearance of reserves								533	313
Other operating income	421	-475	244	246	574	1 156	1 496	1 208	1 082
Other operating costs	598	321	516	435	393	433	3 034	351	626
Operating profit or loss	1 359	45 135	20 695	32 448	63 033	50 566	43 491	37 795	16 245
Other financial income	961	622	942	7 885	10 054	30 041	15 075	8 435	6 724
Other financial costs	2 719	115	81	7 077	4 129	25 342	11 208	4 623	685
Profit or loss from fin. operations	-1 758	507	861	808	5 925	4 699	3 867	3 812	6 039
Profit or loss from ordinary act.	-399	45 642	21 556	33 256	68 958	55 265	47 358	41 607	22 284
Extraordinary income									
Extraordinary expenses	1 638		6 124	9 777	15 312	12 070	10 388		
Extraordinary profit or loss	-1 638		-6 124	-9 777	-15 312	-12 070	-10 388		
Profit or loss after tax	-2 037	32 610	15 432	23 479	53 646	43 195	36 970	32 628	16 560

(in thousands of CZK)

16. Revenue Development

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Revenue	136 250	139 020	128 952	144 741	108 523	109 576	120 701	127 133	134 144

(in thousands of CZK)

17. Data on Facts between the Date of Final Accounts and General Assembly

No events occurred in the given time which would have had an impact on the data presented in the financial statements for 2012.

18. Auditor's Report

ADU.CZ

Independent Auditor's Report for members of CZ.NIC, Special-Interest Association of Legal Entities

We have audited the enclosed Financial Statements of CZ.NIC, zájmové sdružení právnických osob (special-interest association of legal entities), i.e. the Balance Sheet as of 31 December 2012, the Profit and Loss Account for the period from 1 January 2012 to 31 December 2012, and the Notes to Financial Statements, including the description of the significant accounting methods applied.

Responsibility of the Statutory Body of the Accounting Unit for Financial Statements

The statutory body of the Association is responsible for the preparation and true representation of the Financial Statements in accordance with the Czech accounting regulations. The responsibility of the statutory body encompasses the duty to propose, implement and secure internal controls regarding the preparation and true representation of the Financial Statements to ensure that the Financial Statements do not provide misstatements caused by deception or error, to select and apply suitable accounting methods and to provide accounting estimates that are adequate with respect to the situation concerned.

Auditor's Responsibility

Our task is to issue a statement regarding these Financial Statements on the basis of our audit. We conducted our audit in accordance with the Act on Auditors and the International Auditing Standards, as well as with the relevant application clauses issued by the Czech Chamber of Auditors. These regulations require that we comply with the ethical standards and plan and perform the audit to obtain reasonable assurance that the Financial Statements are free of material misstatements.

The audit comprises the execution of audit procedures with the aim of obtaining evidence regarding the amounts and disclosures provided in the Financial Statements. The choice of the auditor's procedures depends on the auditor's discretion, including the consideration of risks that the Financial Statements may comprise significant misstatements caused by deception or error. When considering these risks, the auditor reflects the internal controls relevant for the preparation and true presentation of the Financial Statements. The evaluation of the internal controls aims to propose suitable auditing procedures, not to render a statement regarding the effectiveness of the internal controls. The a udit includes verification of the applicability of the accounting methods used, adequacy of accounting estimates provided by the management and an evaluation of the overall presentation of the Financial Statements.

We are of the opinion that the information obtained represents a sufficient and suitable basis for the auditor's delivery of a statement.

Auditor's Statement

In our opinion, the Financial Statements present fairly and truly, in all material respects, the assets, liabilities, and financial position of CZ.NIC, zájmové sdružení právnických osob, as of 31 December 2012, and of the expenses, revenues and the results of its operations for 2012, in accordance with the Czech accounting regulations.

Malenice, 27 May 2013

ADU.CZ s.r.o.
Zámostí 68, 38706 Malenice
Czech Chamber of Auditors Licence No. 368
Report issued on behalf of ADU.CZ s.r.o. by Ing. Simona Pacáková, Auditor, Czech Chamber of Auditors Decree No. 1825

ADU.CZ s.r.o., Zámostí 68, 387 06 Malenice, IČ 62522078
společnost je zapsána v Obchodním rejstříku u Krajského soudu v Českých Budějovicích, oddíl C, vložka 4943

19. Registered Seat and Contact Information

CZ.NIC, z. s. p. o.
Americká 23/525
120 00 Praha 2

ID No.: 67985726
VAT No.: CZ67985726
Phone: +420 222 745 111
Fax: +420 222 745 112
www.nic.cz

The Association is entered in the registry of special interest associations of legal entities
at the Prague Municipal Authority, registration number ZS 30/3/98.

CZ.NIC – 24-hour customer support
Phone: +420 222 745 111
or
E-mail: podpora@nic.cz